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THE INSECT PEST SURVEY BULLETIN

A periodical review of entomological conditions throughout the United States
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INSECT PEST SURVEY BULLETIN

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OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR SEPTEMBER, 1931.

The grasshopper situation had not materially changed during the fore part of the month; during the latter part of the month, however, damage dropped off rapidly and egg laying started.

The first specimens of the cotton leaf worm were observed in southern Mississippi on August 31. This is so late that there is little probability of any damage to fruit in the Northern States.

The common red spider continued to be troublesome throughout the month over practically the entire country.

A new and heavy infestation of the Japanese beetle was found at Springfield, Mass. This insect was also reported as having been taken at Charleston, S. C., at several localities in Somerset and Worcester Counties, Md., at Richmond, Va., and as far west as Pittsburgh and Erie, Pa. It has also been found this summer at Little Falls, Watkins Glen, Fort Edwards, Albany, and Buffalo, N. Y., and at Boston, Mass.

In this number of the Survey Bulletin is a report on the wheat survey which has just been completed in Illinois. The State average of tiller infestation for this year is 9 per cent as compared with 12 per cent in 1930. There is also in this number of the bulletin a detailed report of the wheat joint worm situation in Illinois.

A chinch bug outbreak in Charleston, S. C., caused very extensive damage to St. Augustine grass lawns in that city. Weather during September as a whole was favorable to chinch bug development in the East Central States and rather large numbers of these insects will in all probability go into hibernation this fall.

The green clover worm quite seriously infested soy beans, cowpeas, and clover in the vicinity of Chadbourn, N. C., and in south-central Tennessee.

The alfalfa weevil did more damage than ever before at Casper, Wyo. In some fields the foliage of the first cutting was practically destroyed.

The three-cornered alfalfa hopper did very appreciable damage to alfalfa in fields along the Mississippi River in Bolivar and Washington Counties, Miss., and from Madison County to East Baton Rouge County, La.

The cowpea curculio was causing rather severe damage in parts of North Carolina and Alabama.

Apple leafhoppers increased in numbers and destructiveness very decidedly during the month of September. Reports of damage were received from Rhode Island, southward through the Middle Atlantic States to Georgia and westward to Oklahoma.

The San Jose scale was reported as very abundant from Pennsylvania westward through the East Central States and southward to Mississippi. This insect seems to be on an upward trend in the East Central States.

The Oriental fruit moth was but moderately abundant and did little damage over the New England, Middle Atlantic, South Atlantic, and East Central States. Very late varieties of peaches in northern Ohio were severely damaged, the lemon freestone being about 50 per cent.

What has been tentatively identified as a European species of blister mite (Phyllocoptes fockeni Na. & Tr.) was collected in southwestern Idaho, where it was russetting the leaves of plum. This insect has not heretofore been recorded from this country.

The grape leafhopper developed rapidly during the early part of September and was reported from Iowa, Nebraska, Mississippi, and Utah as injuring grapes and woodbine.

Mole crickets were occasioning considerable trouble in the truck regions of Florida and Alabama. In Nebraska these insects were more troublesome than ever before recorded.

Blister beetles were quite generally destructive over the entire country from North Carolina southwestward to New Mexico. In the East Central and West Central States they were particularly destructive.

The false chinch bug was reported as damaging cabbage, corn, turnips, and alfalfa in Nebraska, Mississippi, New Mexico, and Texas.

During the month the Mexican bean beetle increased in numbers in the drought area of 1930 to such an extent that it is nearly as numerous in that region as it was in 1929.

An extremely heavy infestation of Fuller's rose beetle was observed at Chadbourn, N. C., where it was very seriously damaging beans.

The lima bean vine borer was quite generally infesting lima beans at Chadbourn, N. C.

Harlequin bugs were reported as generally very numerous throughout the South Atlantic States as far north as Washington, D. C., and were also quite troublesome in the southern part of the East Central States.

Both the pickle and melon worms were doing excessive damage to cucurbits in the Charleston area of South Carolina. The pickle worm was reported as damaging these crops in Alabama and Mississippi. These insects were also more prevalent than usual in Maryland.

The tobacco flea beetle was so numerous as to require the use of insecticides in the burley tobacco districts of North Carolina and Tennessee.

The fall webworm was more troublesome in southern New England than it has been in the past 20 years. It was also reported as generally abundant in the Middle Atlantic States southward to Delaware.

The spruce budworm has killed and is killing large areas of white fir in the vicinity of Halfway, near Whitman National Forest, Oregon, and in the Ochoco National Forest.

Eye gnats have been worse this fall than they have been for many years in the South Atlantic and Gulf States from South Carolina to Texas. Associated with these outbreaks are numerous cases of conjunctivitis.

Various species of sand flies belonging to the genus *Culicoides* were quite prevalent from North Carolina to Florida and around the Gulf to Mississippi.

The stable fly was very unusually prevalent in the South Atlantic and Gulf region from Maryland to Florida, Alabama, and Mississippi. The condition was so serious in Wicomico County, Md., that many horses and cattle were forced into the surf and drowned.

During the past two months over 300 cases of damage to buildings by termites were reported to the Bureau of Entomology. The great majority of these cases were in the Southern States, but scattered reports were received as far north as Iowa, Ohio, and Pennsylvania.

OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR SEPTEMBER, 1931

Reports of increasing grasshopper abundance and crop damage continue to be received from over a wide territory in the Dominion extending from Quebec to British Columbia. Species concerned are the lesser migratory and two-striped grasshoppers in the West, and the red-legged grasshopper in the East.

Infestations of the wheat stem sawfly, ranging from heavy to light, are reported from sections of south-central Alberta, southern Saskatchewan, and southern Manitoba, damage in wheat fields varying from 1 to 75 per cent crop loss.

Over much of southern Quebec, second-year white grubs have been causing extensive damage, particularly in unploughed sod areas, and considerable injury by these insects is anticipated in 1932. In eastern Ontario, the

majority of the grubs had transformed to the adult stage by early August. The species is Phyllophaga anxia Lec.

In southern sections of the Prairie Provinces material damage to garden plants, flax, and weeds has been done by the beet webworm. In certain areas the moth flights of this species, both in spring and late summer, have been the heaviest experienced for many years.

In sections of Alberta, damage and loss to the cabbage crop due to diamond-back moth infestations have been estimated at 25 per cent. In south-western Ontario, the cabbage looper is reported as injurious to cruciferous crops.

Insect pests are scarce in the orchards of the Okanagan Valley, British Columbia, with the exception of the red-humped and the yellow-necked caterpillars, which are more numerous in the Vernon district than for many years.

A major flight of adults of the raspberry cane borer is expected in sections of southern Quebec in 1932, with resultant severe injury to raspberry canes due to the oviposition habits of the females.

In southern Saskatchewan and southern Alberta all types of shade trees have been heavily infested by the common red spider mite. The prevailing dry hot weather has been favorable to the increase of the mite and has lowered the vitality of the trees, with the result that the injury done is much greater than in normal years.

All forest stands containing large white spruce, in Cape Breton and Richmond Counties, Cape Breton Island, Nova Scotia, are more or less infested with the eastern spruce beetle. The infestation of this species in white spruce also continues over an area of 100 square miles on the north and south shores of the St. Lawrence River in Quebec, east of Quebec City.

In the Muskoka district, Ontario, and in sections of southern Quebec, very conspicuous damage to the foliage of birch trees has been effected by the birch leaf skeletonizer.

Cottonwood blotch miners, Zeugophora sp., appear to have greatly increased during the past two years, in southern Saskatchewan and southern Alberta. The black willow aphid is prevalent on Russian poplars in the central portion of the above two provinces.

An outbreak of the willow leaf beetle has resulted in the complete defoliation of native willows over a considerable area in Alberta and Saskatchewan.

The European earwig, which has been established for some time on the Pacific Coast of British Columbia, in Vancouver, New Westminster, and neighbouring municipalities, is now believed to be present in all the settled areas on Vancouver Island.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

- Florida J. R. Watson (September 21): Grasshoppers are very abundant. They are ragging young citrus trees quite severely in places.
- Indiana C. M. Packard (August): Locally numerous in central and southeastern Indiana.
- Illinois W. P. Flint (September 23): Grasshoppers, mainly Melanoplus spp., have been moderately abundant throughout the State, occurring in greater numbers than usual. Some moderate damage has occurred to clover and alfalfa fields in the western part of the State. The damage, however, has not been much greater than usual.
- Kentucky W. A. Price (September 25): Grasshoppers are very abundant.
- Minnesota A. G. Ruggles and assistants (September): Grasshoppers were reported as moderately abundant from practically the entire State. They are still being reported as very abundant from Kittson, Wilkin, Morrison, Olmsted, and Freeborn Counties. (Abstract, J.A.H.)
- North Dakota J. A. Munro (September 21): Grasshopper activity is over for the season but reports of injury have been received from five counties.
- Iowa H. E. Jaques (August 27): Grasshoppers are very abundant in nine central and western counties, and moderately abundant in other parts of the State, but apparently their attacks are growing less severe. (September 24): Grasshoppers are still moderately to very abundant throughout most of the State, but doing less damage.
- Missouri L. Haseman (September 28): Melanoplus femur-rubrum and M. differentialis are still abundant in Columbia, but not doing much damage to fall crops.
- Nebraska M. H. Swenk (August 1 - 31): During the month of August there was but very little further development of the grasshopper outbreak in Nebraska. Scattering and very moderate additional infestations developed in Polk County, and local and very moderate infestations also developed in Nemaha and Pawnee Counties, but no important damage was done in any of these three counties. During the first week in August, near Peru in Nemaha County, the fungous disease of the grasshopper Empusa grylli worked very conspicuously among the differential grasshoppers (Melanoplus differentialis Thos.) living among the willows along the Missouri River, but the disease did not develop outside of the river bottom.

- Kansas H. R. Bryson (September 23): Grasshoppers are very abundant but not causing serious damage except in local areas.
- Tennessee C. Benton (August): Grasshoppers are locally abundant throughout Lincoln and adjacent counties.
- Oklahoma C. F. Stiles (September 28): Grasshoppers are still quite numerous along the creek banks and roadways in the southern central counties. Under favorable conditions there may be a serious outbreak in some parts of these counties, especially where there is considerable waste or grass land near fields that will be planted to row crops next year.
- Mississippi C. Lyle and assistants (September): Grasshoppers are moderately abundant in George, Greene and Perry Counties, and very abundant in Holmes, Panola, and Marshall Counties. (Abstract, J. A. H.)
- Louisiana W. E. Hinds (September 26): Grasshoppers are moderately abundant, feeding on sugarcane and other crops generally.
- New Mexico J. R. Eyer (September 18): Grasshoppers (M. differentialis Thos. and M. femur-rubrum DeG.) are very abundant in the western and northern parts of the State.
- Wyoming C. L. Corbins (September 18): The late summer and fall season thus far has been exceedingly favorable for grasshopper oviposition, and the indications are that there will be serious outbreaks next year where only minor, local infestations occurred this year.
- A. G. Stephens (September 21): Grasshoppers are scarce in the northeastern part of Wyoming.
- Nevada G. G. Schweis (September 25): A field inspection for grasshopper damage on September 24 made in Douglas County showed considerable damage to alfalfa. Some hoppers observed depositing eggs on ditch banks and waste lands. Disease has made its appearance in the hoppers and large numbers were observed dead on the ground while many had crawled upon the stems of sweet clover and alfalfa and died. The county agent made the statement that the hoppers had also been attacked and parasitized by a fly. Many hoppers were dissected in the field and this statement was not confirmed but we have no reason to disbelieve it.
- Utah G. F. Knowlton (September 14): Grasshopper damage is decreasing rapidly in most parts of Utah, but some crops are still being noticeable injured. M. femur-rubrum is the most abundant species found in most fields now.

Oregon L. P. Rockwood (September 2): Grasshoppers, chiefly M. femur-rubrum, are moderately abundant in Washington County, especially in clover fields.

CUTWORMS (Noctuidae)

Georgia O. I. Snapp (August 26): Cutworms are abundant. On this date they destroyed a part of a field of peppers which had been planted for commercial use in Montezuma. The part destroyed was on low ground.

Iowa H. E. Jaques (August 27): Cutworms are still being reported doing moderate damage in five counties. They are very abundant in Wayne County.

Wyoming C. L. Corkins (August 27): I have just learned of a few minor cutworm outbreaks probably the western army cutworm (Porosagrotis orthogonia Morr.) at Casper this spring.

ARMYWORM (Cirphis unipuncta Haw.)

Tennessee C. Benton (August): Larvae of the second brood injured some millet fields near Mt. Hermon and Fayetteville. Several acres of corn, stalks up to 10 feet tall were seen largely stripped of leaves except midribs. Worms practically all pupated by August 30. Adults emerged August 31 from pupae collected the previous day.

COTTON LEAF WORM (Alabama argillacea Hbn.)

Oklahoma C. F. Stiles (September 26): The cotton leaf worm is moderately abundant in the eastern two-thirds of Oklahoma. Hot dry weather holding it in check. (September 28): This insect is present in practically all fields of rank cotton in the eastern two-thirds of Oklahoma. They reached the section too late this year to do very much damage.

Mississippi C. Lyle (September 22): Specimens or reports have been received at this office from 14 counties this season. The first specimen was collected at Lucedale, George County, on August 31. Reports and specimens received since that date indicate a rather general distribution over all parts of the State. Most of the infestations are apparently very light.

Louisiana W. E. Hinds (September 26): This insect is scarce. Infestation is quite common but not yet general. Will strip too late to be effective in reducing weevil hibernation.

FALL ARMYWORM (Laphygma frugiperda S. & A.)

Florida J. R. Watson (September 21): The August brood failed to materialize to any extent. We have seen very few of these insects since July, when they were so numerous.

WHITE GRUBS (Phyllophaga spp.)

- New York C. H. Hadley and assistants, Japanese Beetle Laboratory (August): Approximately 500 square feet of lawn have been destroyed by Phyllophaga sp. (native) in Hampstead.
- New Jersey R. B. Lott (August 31): White grubs are moderately abundant at Eatontown.
- Pennsylvania J. R. Stear (September 23): White grubs are scarce in Ligonier. No injury observed this season. Digging in 11 scattered sod plots, totalling 176 square feet, yielded 256 grubs.
- Nebraska M. H. Swenk (September 21): White grubs were scarce to moderately abundant in southeastern Nebraska.
- Iowa H. E. Jaques (September 24): White grubs are apparently much scarcer than usual except in the middle western part of the State.

WIREWORMS (Elateridae)

- Maine C. R. Phipps (September 24): Wireworms are moderately abundant, attacking potatoes in various parts of the State.
- Kansas H. R. Bryson (September 23): Wireworms are reported doing damage to corn at Madison.
- Mississippi and Alabama K. L. Cockerham (August 27 and 28): Recent scouting has revealed the presence of Heteroderes laurentii Guer. in two additional counties. On August 27 Mr. O. T. Deen collected adults near Neely in Green County, Miss., and on August 28 near Leroy in Washington County, Ala.
- Mississippi N. L. Douglass (September): Wireworms have been found damaging sweetpotatoes by boring holes through them in Yalobusha and Grenada Counties.

MOURNING CLOAK BUTTERFLY (Aglais antiopa L.)

- Oregon W. J. Buckhorn (July 27 to August 1): There are countless numbers of mourning cloak butterflies flying at present south of the Medford-Anna Springs Highway and west of the Ft. Klamath Highway. They always fly into the wind and shift their course whenever the wind does. Large numbers alight on the Abies magnifica. They seem to draw something from the lower part of the needles as they run their probosces around them.

COMMON RED SPIDER (Tetranychus telarius L.)

New York

P. M. Eastman (September 9): Specimens of injured twigs of Boxwood were received at this office today from Springfield Gardens and Bellport, Long Island. The injury is caused by red spider mites although no cast skins were found to make a definite identification.

Mississippi

C. Lyle (September 22): Complaints of injury to ornamentals of various kinds have been received recently from Bolton, Greenville, and New Albany.

Utah

G. F. Knowlton (September 14): Red spiders are damaging sugar beets in a number of Cache Valley fields.

Washington

M. A. Yothers (August): The common red spider has been and still is unusually abundant on apple, prune, cherry, locust, and many other kinds of plants in the Wenatchee district. In a few orchards the mites have been eliminated by Stethorus picipes Casey, a small coccinellid beetle.

JAPANESE BEETLE (Popillia japonica Newm.)

General

C. H. Hadley and assistants, Japanese Beetle Laboratory (August): Adults decreased rapidly shortly after the beginning of the month. There was a general desertion of most types of vegetation and a concentration on smartweed (Polygonum), which by the end of the month continued to harbor fair numbers of beetles. Most first instar larvae transformed to the second instar during the month. This constituted the dominant stage in the soil during the last half of the month. The first third instar larvae were found on August 19. Eggs decreased rapidly during the month and became relatively scarce after the middle. Scouting in the Pocono region of Pennsylvania gave negative results except for one beetle at Buckhill Falls. A new and quite heavy infestation was found at Springfield, Mass. During our surveys in this region grubs have been found in large numbers. By the end of August, scouting operations were nearly completed, and, while much of the data have not yet been critically reviewed, it seems possible at this time to indicate with a fair approach to accuracy the limits of the area within which the Japanese beetle is essentially continuous occurrence. These limits are approximately indicated by the location of the following places: New Jersey: Milford, Flemington, Somerville, Perth Amboy, Red Bank, and the coast from Asbury Park south to Ocean City, South Seaville, and west of Dennisville, the shores of Delaware Bay; Pennsylvania: Kintorsville, Buckville, Quakertown, Green Lane, Spring City, Coatesville, and Kennett Square; Delaware: Newark, and about midway between New Castle and Delaware City.

U. S. D. A. Press Service (September 18): The Secretary of Agriculture announced today that during the summer specimens of the Japanese beetle have been taken at Charleston, S. C. The department reports the collection of beetles at various places outside the previously regulated areas, including several locations in Somerset and Worcester Counties, Md., Richmond, Va., several places in western Pennsylvania, including Altoona and Erie, and scattered findings in New York State, including Little Falls, Watkins Glen, Ft. Edward, and Albany. Specimens were also found again this year at Pittsburgh and New Castle, Pa., Buffalo, N. Y., and Boston, Mass., where one or more beetles had been discovered in previous seasons, but where the department last year did not think it necessary to extend the quarantine.

New York

C. R. Crosby (August 23): Specimen received from Elmira.

ASIATIC BEETLE (Anomala orientalis Waterh.)

Connecticut

W. E. Britton (September 24): There is much injury this season in the infested area where lawns have not been treated.

New York

C. H. Hadley and assistants, Japanese Beetle Laboratory (August): At the Jericho infestation, where the severe droughts of 1929 and 1930 reduced the abundance of the insect so that it was difficult to find grubs, they have multiplied again so that half an acre of turf injury by grubs has appeared on the lawn of the J. S. Stevens estate. The insect is definitely more abundant throughout the area than in 1930. No new infestations have been observed, but at the old infestations the abundance is rapidly increasing, except where the lawns have been treated.

ASIATIC GARDEN BEETLE (Aserica castanea Arrow.)

New York

C. H. Hadley and assistants, Japanese Beetle Laboratory (August): This species is definitely more abundant than during 1930 and more foliage injury has been observed. Heavy infestations occur on Long Island throughout the northern half of Nassau and Queens Counties, around the towns of Jericho, Glen Cove, Locust Valley, Roslyn, Old Westbury, Fort Washington, Great Neck, Little Neck, Douglaston, and Flushing. The heavy infestations on the mainland occur in the northern part of Bronx County and the southern half of Westchester County.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Maryland

E. N. Cory (September 25): The Hessian fly is scarce.

Ohio

T. H. Parks (September 26): The Hessian fly is moderately abundant.

Indiana

J. J. Davis (September 25): The Hessian fly is moderately abundant. Reported abundant in volunteer wheat in sections of southern Indiana.

Illinois

W. P. Flint (August): The Hessian fly survey of Illinois made each year during the first part of August by the Natural History Survey and the Federal Bureau of Entomology, cooperating, shows the following conditions in the different wheat-growing areas of the State.

On the whole, there has been a slight decrease in the abundance of the fly in northern and east-central Illinois. In these sections of the State the fly is relatively scarce and it is not likely that any damage will occur. In the southern end of the State there is a moderate infestation, with conditions approximately the same as last year, showing a slight decrease in all the wheat-growing sections. In east-central Illinois there has been a slight decrease with a very light infestation in this section.

In the west-central part of the State, in the section running from Randolph, Perry, Clinton and Marion Counties on the south to Hancock, McDonough, Fulton and Peoria Counties, on the north, and on the east to Tazewell, Sangamon and Christian Counties, there is an area of moderately heavy to heavy infestation. Another area of heavy infestation is found on the east side of the State, centering in Crawford County.

Insects that feed on the Hessian fly are moderately abundant in most sections, parasitism being about 50 per cent in western and southern Illinois and somewhat less in the northern part of the State.

The recent rains have started the fly coming out and laying eggs, and if these rains continue, wheat sown on the normal dates for highest yields should escape any serious infestation. If the present rainy period is followed by another period of drought, rains not occurring again until the latter part of September, the fly will come out a little later than usual and serious infestation will occur for a week or ten days after the normal date of seeding for highest yield.

Average percentage of wheat tillers infested.

County	Per cent	County	Per cent
Adams	8.0	Lawrence	117.0
Brown	9.3	Lee	1.3
Bureau	3.4	Livingston	.1
Cass	5.3	Macoupin	26.6
Champaign	1.9	Madison	11.0
Christian	9.3	Marion	15.3
Clark	8.0	Mason	12.5
Clinton	21.0	McDonough	31.0
Crawford	34.2	Menard	3.6
DeKalb	1.5	Montgomery	23.6
Douglas	1.0	Morgan	8.0
Edgar	7.2	Ogle	3.0
Edwards	6.0	Peoria	2.3
Ford	0	Perry	8.3
Fulton	18.3	Rock Island	2.7
Gallatin	8.3	Randolph	7.3
Greene	37.3	Richland	4.6
Hancock	17.2	Saline	11.0
Henry	2.7	Sangamon	8.3
Iroquois	1.2	Schuyler	4.6
Jackson	13.3	Scott	11.6
Jersey	23.3	Tazewell	5.3
Kane	1.0	Vermilion	1.2
Kankakee	1.4	Whiteside	3.5
LaSalle	1.2	Will	1.3

These figures give an average infestation for the State of about 9 per cent as compared with 12 per cent in 1930.

Average for the State 9.32

Kansas

H. R. Bryson (September 23): Dr. R. H. Painter made a survey, visiting wheat fields en route from Manhattan to Concordia, Beloit, Bennington, and Junction City, and reports finding "flax seed" or large larvae in almost every field containing volunteer wheat. The volunteer wheat which was abundant averaged about one infested plant to each clump. He reports that volunteer wheat at the College Farm contained large larvae and flax seed on September 10.

WHEAT STEM MAGGOT (Meromyza americana Fitch)

Kansas

H. R. Bryson (September 23): Dr. R. H. Painter reports large larvae present in volunteer wheat at College Farm.

WHEAT JOINT WORM (Harmolita tritici Fitch)

Illinois

W. P. Flint (September 23):

Average percentage of wheat tillers infested.

County	Per cent	County	Per cent
Adams	.3	Lawrence	0
Brown	.3	Lee	0
Bureau	.4	Livingston	0
Cass	.3	Macoupin	.3
Champaign	.1	Madison	.6
Christian	.3	Marion	.6
Clark	.1	Mason	0
Clinton	.6	McDonough	10.0
Crawford	0	Menard	2.6
DeKalb	0	Montgomery	.6
Douglas	0	Morgan	2.0
Edgar	0	Ogle	0
Edwards	0	Peoria	0
Ford	0	Perry	0
Fulton	15.3	Rock Island	0
Gallatin	4.6	Randolph	0
Greene	1.6	Richland	0
Hancock	5.7	Saline	0
Henry	.3	Sangamon	0
Iroquois	0	Schuyler	.6
Jackson	0	Scott	.6
Jersey	1.6	Tazewell	0
Kane	0	Vermilion	0
Kankakee	0	Whiteside	1.3
LaSalle	.6	Will	0

The figures give an average infestation for the State of .4 per cent as compared with 2.5 per cent in 1930.

FALSE WIREWORMS (Tenebrionidae)

Washington

J. Finley (About September 18): Drove three miles (from Glade to Alderdale) through a migration of these beetles, all moving in a straight westerly direction; we walked about 150 yards out on each side of the road and estimated that the beetles averaged two to a square foot.

WHEAT HEAD ARMYWORM (Neleucania albilinea Hbn.)

Maine

H. B. Peirson (September 25): A very heavy infestation of the wheat head armyworm is reported on wild rice at South Lincoln.

CORN

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Maine

C. R. Phipps (September 24): The European corn borer is scarce.

Vermont

H. L. Bailey (September 28): The European corn borer is reported as moderately abundant in the southern section of the State. Reported as present but in small numbers elsewhere.

Connecticut

N. Turner (September 15 and 16): The European corn borer is present in ears and stalks of corn. Two small fields of sweet corn at Groton were moderately damaged.

W. E. Britton (September 15 and 16): The European corn borer is quite generally destructive in the southern portion of New London County.

Rhode Island

A. E. Stene (September 24): The European corn borer is very abundant in spots, but moderately abundant in most cases.

New York

New York Agr. Expt. Station, Geneva (August 27): The European corn borer is very abundant in western New York.

CORN EAR WORM (Heliothis obsoleta Fab.)

Maine

C. R. Phipps (September 24): The corn ear worm is very abundant in Penobscot County.

Connecticut

N. Turner (September): In several fields in Fairfield County almost every ear was damaged by the corn ear worm. It is not prevalent in the northwestern part of the State.

Pennsylvania

J. R. Stear (September 23): The corn ear worm is scarce in Ligonier. Found only one worm in approximately 20 dozen ears of sweet corn harvested from my home garden.

Virginia

H. G. Walker (September 25): The corn ear worm is very abundant on Chinese cabbage around Norfolk.

- North Carolina C. H. Brannon (August 25): Damage to corn on the tip and ear has been extremely severe this season.
- Florida J. R. Watson (September 21): The corn ear worm is moderately abundant. It is feeding mostly on beggarweed seeds and mining crotalaria pods.
- Indiana J. J. Davis (September 25): The corn ear worm is moderately abundant. Rather abundant generally in late corn, also attacking garden beans.
- Illinois W. P. Flint (September 23): During the first part of September there has been an extremely heavy flight of adults throughout most of the State. At the present time corn has ripened and hardened so that very few eggs are being laid upon it. The moths are depositing very generally on some other plants, which often show from 25 to 50 eggs to the leaf.
- Minnesota A. G. Ruggles and assistants (September): During the early part of the month the corn ear worm was being reported as very abundant over the southern half of the State. (Abstract, J.A.H.)
- North Dakota J. A. Munro (September 21): The corn ear worm has been unusually abundant this season. Reports of its presence have been received from practically every corn-growing section of the State.
- Iowa H. E. Jaques (August 27): Unusually common in field corn this year. (September 24): The corn ear worm is very abundant throughout most of the State.
- Nebraska M. H. Swenk (September 21): The corn ear worm is moderately abundant to very abundant in eastern Nebraska.
- Kansas H. R. Bryson (September 23): The corn ear worm has done considerable damage to corn in Kansas.
- Oklahoma C. F. Stiles (September 26): Corn ear worms are moderately abundant in central and eastern Oklahoma. Some damage to cotton bolls in bottom land and flight damage to pods of soybean in Craig County.
- Mississippi C. Lyle (September 22): Severe injury to Grohoma sorghum was reported from Crenshaw on August 28. Several complaints have been received of injury to tomatoes.
- Oklahoma C. E. Sanborn (September 22): The corn ear worm is very abundant.
- Utah G. F. Knowlton (September 14): The corn ear worm has been slightly more destructive than usual in Utah during the present season.

STALK BORER (Papaipema nebris nitela Guen.)

- Maine C. R. Phipps (September 24): The stalk borer is very abundant throughout the State.
- Iowa H. E. Jaques (September 24): The stalk borer is moderately abundant in Dickinson, Humboldt, Floyd, Wright, Mills, and Iowa Counties.
- Nebraska M. H. Swenk (August 1 to 31): Reports of the stalk borer boring in corn stalks were received during the first half of August from Johnson, Saline and York Counties.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

- North Carolina W. A. Thomas (September 24): The lesser corn stalk borer is now doing serious damage to strawberries and snap beans in Chadbourn. The stand of fall beans is badly broken as a result of their attacks.

SOUTHERN CORN STALK BORER (Diatraea zeacolella Dyar)

- North Carolina C. H. Brannon (August 12): The larger corn stalk borer is causing widespread damage to corn over the State.

CHINCH BUG (Blissus leucopterus Say)

- South Carolina W. J. Reid (September 23): St. Augustine grass lawns in Charleston are being severely injured by an unusually heavy infestation of the chinch bug. The insect was present and did some damage to these lawns last summer and fall but seems to be much more destructive this year. St. Augustine grass, locally known as "Charleston grass," is used quite extensively for lawn plantings in the Charleston area, being used more than any other grass. The chinch bug infestation is general throughout the city and its environs, and entire lawns are known to have been destroyed. Drought is aggravating the insect injury.
- Ohio T. H. Parks (September 25): During the corn harvest in north-western Ohio, chinch bugs were found quite plentiful throughout the fields, and in some fields their feeding apparently hastened the ripening of the crop. The season has been very favorable and the insects have increased greatly.
- Indiana J. J. Davis (September 25): The chinch bug is scarce.
- Illinois W. P. Flint (September 23): The weather, on the whole, has been favorable to chinch bug development and a large percentage of bugs developing in the fields have now reached the adult stage.
- Minnesota A. G. Ruggles and assistants (September): The chinch bug is still being reported as moderately abundant in the southeastern corner of the State. (Abstract, J.A.H.)

- Iowa H. E. Jaques (August 27): Chinch bugs are very abundant in Clay County.
- Missouri I. Haseman (September 28): The chinch bug is very abundant on late sweet corn, tomatoes, and on garden beans in Columbia. There are 2 or 3 to an ear of late corn.
- Kansas H. R. Bryson (September 23): Chinch bugs are very scarce at Manhattan. Damage was not so severe in the south-central and southeastern counties as might have been expected from the number of old bugs which successfully passed the winter.
- Alabama J. M. Robinson (August 20): The chinch bug was abundant in cornfields August 10 at Huntsville, Madison County.

CORN LANTERN FLY (Peregrinus maidis Ashm.)

- Mississippi C. Lyle (September 22): Specimens of the corn lantern fly, were abundant in a cornfield at A. & M. College on September 17.

CORN LEAF APHID (Aphis maidis Fitch)

- Nebraska M. H. Swenk (August 1 to 31): During the period from August 12 to 21 there were numerous complaints of an abundance of the corn-leaf aphid on the tassels and in the leaf axils of the corn. These reports came mostly from the central part of the State, from Platte and Boone Counties north to Holt County and south to Clay and Franklin Counties. Apparently, however, no very serious damage was done.

CLOVER

GREEN CLOVER WORM (Plathypena scabra Fab.)

- Virginia C. R. Willey (September 28): The green clover worm did considerable damage to soybeans in Hanover County, several fields/being badly damaged on August 10. Many moths were flying and pupae were easily found in debris on the ground.
- North Carolina W. A. Thomas (August 19): A few fields of soybeans in the vicinity of Chadbourn have become so heavily infested that the growers have been forced to harvest them for hay several weeks earlier than the usual harvesting date. Practically every field in the section is more or less injured. Snap beans are also being attacked. There is little parasitism.
- C. H. Brannon (August 12): An unusually serious outbreak is occurring all over eastern North Carolina, damaging soybeans mostly. Damage to alfalfa in the Piedmont also noticed.
- Tennessee C. Benton (August): A rather severe and general outbreak was observed occurring on soybeans and occasional field of cowpeas

throughout August in Marshall, Bedford, Lincoln and Franklin Counties. Several hundred acres infested, much of the crop being cut earlier than planned/ in order to avoid further loss.

CLOVER APHID (Amuraphis bakeri Cowan)

Utah G. F. Knowlton (September 18): The clover aphid has been only moderately abundant in northern Utah during the present season.

Oregon L. P. Rockwood (September 2): Clover heads in Washington County are not as sticky with honeydew as usual.

PEA APHID (Illinoia pisi Kalt.)

Oregon L. P. Rockwood (September 2): A few aphids have been observed in alfalfa fields and on Scotch broom in Washington County. No alates seen August 11.

ALFALFA

ALFALFA WEEVIL (Phytonomus posticus Gyll.)

Wyoming C. L. Corkins (August 27): The alfalfa weevil is very abundant at Casper, causing more damage this year than ever before recorded. The weevil reduced foliage on the first cutting in some fields from 90 to 95 per cent.

GARDEN WEBWORM (Loxostege similalis Guen.)

Indiana J. J. Davis (September 25): The garden webworm was reported abundant and destructive to alfalfa at Plymouth August 29.

Illinois W. P. Flint (September 23): The alfalfa webworm has been abundant throughout the State and has caused considerable injury to newly sown alfalfa fields.

Kansas H. R. Bryson (September 23): The garden webworm was still doing damage to alfalfa as late as August 29 at Manhattan.

Nebraska M. H. Swenk (August 1 to 31): From August 7 to 10 a few reports were received from Saline and Gage Counties of an abundance of the garden webworm, working on the third cutting of alfalfa, and more or less seriously injuring it.

THREE-CORNERED ALFALFA HOPPER (Stictocephala festina Say)

Mississippi G. I. Worthington (September 18): The three-cornered alfalfa hopper is general in all alfalfa fields in Washington and Bolivar Counties. Damage is very noticeable and in some cases severe.

Louisiana

W. E. Hinds (September 26): The three-cornered alfalfa leafhopper has caused a number of complaints of injury to alfalfa fields ranging from Tallulah to Baton Rouge along the Mississippi Valley. The injured fields turn yellow and close examination shows that the stems have been practically girdled by the feeding of the nymphs close to the ground. The gall formation following this feeding cuts off the flow of sap to the tops and the cortex tissues just above the gall break down and decay.

A TREEHOPPER (Campylenchia latipes Say)

Nebraska

M. H. Swenk (August 1 to 31): During the third week in August an alfalfa field in southwestern Saunders County was found to have been obviously injured by this treehopper.

SORGHUM

SORGHUM MIDGE (Contarinia sorghicola Coq.)

Mississippi

C. Lyle (September 22): Sorghum heads received from West Point on September 15 apparently had been severely injured by the sorghum midge. The heads were not filling out properly as a result of the attack.

SOUTHERN CORN STALK BORER (Diatraea zeaedolella Dyar)

Virginia

C. R. Willey (September 28): Specimens of the larger corn stalk borer were received from Walkerton in sorghum.

GRASS

SOD WEBWORMS (Crambus spp.)*

West Virginia

L. M. Peairs (August 29): Sod webworms are very abundant in northern West Virginia.

Ohio

T. H. Parks (September 26): Although serious injury to lawns and golf courses occurred during July and the first half of August, no recurrence of this trouble occurred in September. Moths were caught in large numbers until about September 10, but since that date they have not been observed or captured at lights in large numbers.

*Correction: The note credited to Packard and Noble (Vol. 11, No. 7, Page 436) refers to conditions in Indiana, not Tennessee.

Ohio
and
Indiana

C. M. Packard (August): Continued widespread injury to lawns and golf greens in Indiana and Ohio during first half of August. Adults very abundant. Two species have been determined by W. Schaus as C. teterellus Zinck. and Crambus n. sp. These were taken from infestations at Battle Ground, Ind.

Indiana

J. J. Davis (September 25): Sod webworms continued to be reported as lawn pests, apparently referring to infestations several weeks ago. Reports came from Richmond August 22, Michigan City August 25, and Covington September 11.

Kentucky

W. A. Price (September 15): The sod webworm is still numerous and active in lawns in Lexington.

M. L. Didlake (July): Specimens of parasites (Apanteles crambi Weed) emerged July 28 from sod webworms collected in Fayette County, July 15.

Iowa

H. E. Jaques (September 24): The heavy damage of the summer moths has been greatly reduced, but worms are still present in many regions. The adults are very abundant.

TIGER MOTHS (Apantesis spp.)

Tennessee

J. U. Gilmore and J. Milam (September 24): Apparently the fourth brood of what is probably Apantesis phalerata Harr. is now present on forage crops and tobacco at Clarksville.

C. Benton (August): Considerable numbers of mature third-brood larvae of Apantesis phyllira Drury are present in cornfields, roadsides and waste lands throughout southern Marshall County. Practically no commercial damage observed. The first pupae were taken in the field August 28.

A TOAD BUG (Geocoris bullatus Say)

Nebraska

M. H. Swenk (August 1 to 31): This large-eyed false chinch bug was quite injurious to lawns in and around Lincoln during the middle of August.

A MINING BEE (Halictus versatus Robertson)

Mississippi

J. M. Langston (June 25): These specimens were sent to us on June 13 by Inspector W. L. Gray, Natchez, with the following comment: "Hundreds of these little insects live in the ground in holes. They are ruining the sod in my yard in places by making the surface of the ground uneven. Early in the morning and late in the afternoon they may be seen in their holes with their heads about even with the surface of the soil. Last season there was only one little place where they were noticed in the front yard. Now they are general." (Det. Grace Sandhouse.)

CHUFA

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

Mississippi

C. Lyle (September 22): Specimens were collected from chufa plants at Perkinson on August 21. Only slight injury had been caused by them.

A CURCULIONID (Barini)

Mississippi

C. Lyle (September 22): Curculio larvae, presumably of the Barini group (det. by A. F. Satterthwait), were reported as causing severe injury to chufa plants at Perkinson on August 21.

COWPEAS

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

North Carolina

W. A. Thomas (August 15): During the past month the cowpea pod weevil has been very abundant in the Chadbourn section of North Carolina and has caused rather severe damage on many farms. Larvae collected in late July proved to be very heavily parasitized by Myiophasia aenea Wied.

Alabama

J. M. Robinson (August 20): Adults are depositing eggs in large numbers at the present time. (September 22): The cowpea curculio is very abundant in the southern half of the State, Reported from Birmingham, Grady, Ensley, ^{and} Fairford.

SOYBEANS

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

Louisiana

W. E. Hinds (September 26): The soybean caterpillar has increased more slowly than last season and has done no damage as yet at Baton Rouge. However, many fields of soybeans have been stripped in the southern part of the State, where they were being grown for seed and no poisoning was done.

Oklahoma

C. F. Stiles (September 28): The velvetbean caterpillar was found feeding on foliage of the soybean six miles north of Vinita. This insect is not very numerous this year and I doubt if the damage will amount to very much.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana

W. E. Hinds (September 26): The sugarcane borer is now increasing in abundance noticeably as the third generation matures and the fourth generation is starting. Infestation is most apparent in P.O.J. 213 cane. Egg collections made in many fields during September 1 to 15 showed no trace of *Trichogramma* in a number of localities. The average percentage of natural parasitism by *Trichogramma* in uncolonized check areas during the period from July 11 to September 1 has ranged from 6.6 to 22.6 per cent. In the average of all colonized areas during this period parasitism has ranged from 57.9 to 71.6. While in the average of fields adjacent to colonized areas the percentage has ranged from 35.6 to 68.9. It is expected that the peak of parasitism will be reached in cane fields before the middle of October on 4th generation borer eggs.

SUGARCANE BEETLE (Paetheola rugiceps Lec.)

Louisiana

W. E. Hinds (September 26): Adults, evidently developed this season from eggs laid between about April 15 and June 15, have appeared quite commonly during the past month and are feeding upon the bases of young shoots of sugarcane and in fields of rice especially.

KUDZU VINE

BEAN LEAF ROLLER (Goniurus proteus L.)

Virginia

C. R. Willey (September 28): On September 27 at Richmond at Kudzu vine was found containing a heavy infestation of the bean leaf roller. The larvae were apparently full grown.

FRUIT INSECTS

APPLE

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Washington M. A. Yothers (September 21): The woolly aphid is more abundant and injurious this season than for several years.

CODLING MOTH (Carpocapsa pomonella L.)

Connecticut P. Garman (September 21): The codling moth seems to be more abundant in commercial orchards in New Haven County than for some years.

New York N. Y. State Coll. Agr., Weekly News Letter (August 27): The codling moth is very abundant in western New York.

Pennsylvania H. M. Worthley (September 16): The codling moth is very abundant in many orchards of Franklin and Adams Counties.

Delaware L. A. Stearns (September 26): The late second and third brood larvae of the codling moth are doing but moderate injury.

Virginia W. J. Schoene (September 23): The life history studies of the codling moth in the Blacksburg and Roanoke section indicate that there will be no third brood this year. The commercial fruit growers are picking apples. They report many stings but few apples with worms. It seems that the insect has been held in check in commercial orchards in the central part of the State in spite of the heavy carry-over from last season.

Georgia C. H. Alden (September 21): The codling moth is very abundant in Cornelia. No fresh injury noted, egg laying is over, many worms are going under the bands, and few are pupating. Most of the larvae are making winter cases.

Ohio T. H. Parks (September 26): The codling moth is moderately abundant generally and very abundant in Ottawa and Lawrence Counties. Lawrence is the only county in which there has not been a good degree of control generally. The infestation on the hill orchards of that county averages from 10 to 40 per cent, most the blemishes being stings that do not ruin the fruit for sale. Three commercial orchards in northern Ohio have suffered from this pest this year, even though a good spraying program was followed. Nearly all of the orchards in the State outside of Lawrence County have had good control with sprays. We have had a partial third brood of larvae in Lawrence County, though not so many as appeared in 1930.

- Illinois W. P. Flint (September 23): Pupation of the codling moth ceased during the latter part of August and there is no indication of a late infestation such as occurred last year.
- Missouri R. M. Jones (September 6 and 15): Some orchards are remarkably free of worms, whereas others have from moderate to severe infestations. The last record of third brood emergence was taken on September 6, but larvae were observed entering the fruit until September 15.
- Iowa H. E. Jaques (September 24): The codling moth is more than ordinarily in evidence in many parts of the State.
- Mississippi C. Lyle and assistants (September): The codling moth is very abundant in Tate County, only county in which I have made observations.
- New Mexico J. R. Eyer (September 18): The codling moth is very abundant in all parts of the State.
- Utah G. F. Knowlton (September 22): The codling moth is from moderately to very abundant in northern Utah.
- Washington M. A. Yothers (September 21): The codling moth is more abundant and injurious this season than it has been for several years.
- Washington E. J. Newcomer (September 21): The codling moth is undoubtedly more abundant this season than it has ever been. This was brought about by a combination of a mild winter, an early spring, and unusually favorable weather for oviposition during May and June. Moths from overwintering larvae emerged early and deposited many eggs, resulting in a very heavy second brood and a partial third brood. Almost continuous cool, cloudy weather since September 5 has practically put a stop to codling moth activity for the season. A total of 11,630 moths have been caught in 5 baits during the season, as compared with 4,016 moths caught in the same number of baits located in the same trees in 1930. The orchard was given practically the same treatment both years, being sprayed seven times during the season.
- APPLE AND THORN SKELETONIZER (Hemerophila pariana Clerck)
- New York A. E. Stene (September 24): Many apple orchards in the Niagara district were turned completely brown from attacks of the apple and thorn skeletonizer.
- RED-HUMPED CATERPILLAR (Schizura concinna S. & A.)
- Kentucky W. A. Price (September 25): The red-humped apple tree caterpillar defoliated many apple trees at Stamping Ground, Scott County.

SPRING CANKER WORM (Paleacrita vernata Peck)

Wisconsin

E. L. Chambers and assistants⁸⁸⁸⁸ (June): Canker worms are very abundant. Many trees have/defoliated in Vernon County.

APPLE LEAFHOPPERS (Cicadellidae)

Connecticut

P. Garman (September 21): The leafhopper Ermoa rosae L. has appeared in injurious numbers in several large orchards in the State. This is apparently the second brood appearing this year in New Haven and Hartford Counties.

Delaware

L. A. Stearns (September 26): The apple leafhopper is very abundant throughout the State.

Maryland

E. W. Cory (September 24): Leafhoppers (several species) are doing considerable damage to apples throughout the State.

Virginia

W. J. Schoene (September 23): The several species of leafhoppers attacking apples have been present in small numbers throughout the summer, the numbers increasing as the summer advances. In a few orchards in Shenandoah and Roanoke Counties the insects are so numerous that the fruit is being spotted and the foliage injured by the feeding of the adults. Fully 90 per cent of the damage is being caused by Typhlocyba poraria McAtee. These are present more or less in the adult stage. There were just a few nymphs on the foliage September 15. The weather has been dry and very hot during the month of September, and it is believed that the high temperatures have been favorable to the insects.

Ohio

T. H. Parks (September 26): Apple leafhoppers (Emmascas fabae Harr.) are very abundant generally, and in many commercial orchards they are causing serious spotting of the fruit.

Oklahoma

G. E. Sanborn (September 22): The apple leafhoppers are moderately abundant.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Pennsylvania

J. R. Stear (September 23): The San Jose scale is very abundant in Ligonier. Apples on unsprayed trees show many scale spots.

Georgia

C. H. Alden (September 21): The San Jose scale is scarce in Cornelia. No crawlers have appeared.

O. I. Snapp (September 2): The infestation ^{now} is about average for this season of the year in Fort Valley.

- Florida J. R. Watson (September 21): San Jose scales are moderately abundant; rather more abundant than usual in September, owing to drought.
- Ohio T. H. Parks (September 26): This insect is very abundant. It has caused more blotches on apples than for many years.
- Indiana J. J. Davis (September 25): The San Jose scale is moderately abundant. Many orchards will be heavily infested by fall.
- Illinois W. P. Flint (September 23): The San Jose scale is increasing throughout the State. There is a more general and heavier infestation in commercial orchards than has been the case for several years.
- Kentucky W. A. Price (September 25): The San Jose scale is increasing rapidly in the State. This has been an outstanding feature in our orchard and nursery inspection work this year.
- C. O. Eddy (September 1): There is an unusual^a bundance of San Jose scale, especially on apples and plums, and to a slightly lesser extent on peaches.
- Iowa H. E. Jaques (August 27): The San Jose scale is very abundant in Osceola County.
- Missouri L. Haseran (September 28): This insect has developed greatly this summer and the fruit is badly blotched in some orchards.
- Mississippi C. Lyle and assistants (September): Very abundant throughout the State, decidedly increasing in destructiveness, particularly to sand pears. (Abstract, J.A.H.)

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

- Indiana J. J. Davis (September 25): The oyster-shell scale is moderately abundant.
- Minnesota A. G. Ruggles and assistants (September): The oyster-shell scale is reported as very abundant from the southern three tiers of counties in the State. (Abstract, J.A.H.)
- Iowa H. E. Jaques (September 24): The oyster-shell scale is moderately abundant in Errett County.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

- Maine C. R. Phipps (September 24): The apple maggot is very abundant throughout the State.

Michigan

R. H. Pettit (September 21): We are enjoying an almost complete immunity from the attacks of apple maggot. Very few affected apples have been sent in thus far this year.

TWO-SPOTTED MITE (Tetranychus bimaculatus Harvey)

Washington

M. A. Yothers (August 28): This mite has been and still is much more abundant than usual in the Wenatchee section. In a few instances the predacious coccinellid beetle Stethorus picipes Casey has cleaned up the infestations completely.

PEACH

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

Connecticut

P. Garman (September 21): The oriental fruit moth is more abundant than last year. Some orchards are severely infested. Parasitism is low in many places.

Rhode Island

A. E. Stone (September 24): The oriental fruit moth is moderately abundant.

New Jersey

R. B. Lott (August 31): The oriental fruit moth is moderately abundant at Eatontown.

Pennsylvania

H. M. Worthley (September 16): The oriental fruit moth is relatively scarce in Adams County.

Delaware

L. A. Stearns (September 26): Infestation of peaches by the oriental fruit moth is light.

Maryland

E. W. Cory (September 25): Oriental fruit moths are moderately abundant.

Virginia

W. J. Schoene (September 23): The peaches in most of the orchards in Virginia were only mildly infested by the peach moth during this month. The infestation ranged from one to three per cent. The commercial crop has been picked. A few third-brood adults are present in the orchard, and if peaches were present there would be many fourth-brood larvae. It is expected that there will be some fourth-brood larvae in apples near peach orchards. During the season of 1931 the damage to twigs has been fairly light throughout the State.

West Virginia

L. M. Peairs (August 29): The oriental fruit moth is moderately abundant at Morgantown.

Georgia

O. I. Snapp (August 31): Pears on trees in yards in Fort Valley are heavily infested. These few pear trees are the only host available since the close of peach harvest about a month ago. The infestation in commercial peach orchards was very light throughout the season.

- Georgia C. H. Alden (September 21): The oriental fruit moth is scarce in Cornelia. It is not in hibernation.
- Ohio T. H. Parks (September 26): The oriental fruit moth is very abundant on late peaches in Ottawa and Erie Counties. In southern and central Ohio no commercial injury was done to the Elberta peach crop. In northern Ohio the injury has been more severe, though in Ottawa County not over 5 per cent of the Elberta peaches were rendered unfit for sale. The Leron Free, which were harvested late in September, were very heavily infested in that county. Some growers lost more than half of their peaches.
- Indiana J. J. Davis (September 25): The oriental fruit moth is moderately abundant.
- Kentucky W. A. Price (September 25): The oriental fruit moth is moderately abundant. Dr. Eddy reports that the oriental fruit moths taken with codling moths from apples constituted from 1 to 3 per cent of the total.
- Missouri R. M. Jones (September 22): Several adults were reared at the laboratory in July. This material was collected in the Marionville section and represents the first record of this species in southwestern Missouri.
- Tennessee H. G. Butler (August 31): The trap catch of moths was much higher in August than at any previous time this year in Roane County. The maximum 24-hour catch of 1,284 moths was removed from the traps August 20. During August over 1,200 parasites were reared from infested twigs. These parasites are mainly Macrocentrus delicatus Cress. In most orchards fruit infestation was of minor importance this year.
- Arkansas A. J. Ackerman (August 28): The oriental fruit moth showed up in the commercial peaches from Springdale this year. Springdale, which is located about twenty miles south of Bentonville, is the only commercial peach section in northwestern Arkansas. A light infestation was found in an orchard of Georgia Belle and Elberta, which produced no peaches last year because of crop failure.
- Alabama J. M. Robinson (September 22): The oriental fruit moth is moderately abundant on pears in Auburn and Marbury.
- Mississippi State Plant Board, Press Release (August 31): The oriental fruit moth was reported in eight widely scattered localities, but this pest is seldom serious on trees that are sprayed for curculio according to schedule.
- Louisiana W. E. Hinds (September 26): Injured pears indicate the presence of this species at Arite, although stages were not seen.

Mississippi

P. D. Sanders (September 8): Several quince trees standing in a block of peach trees at Glover had a fair crop of fruit. The peaches had been harvested two/earlier^{weeks}, and the quinces were ripening. The oriental fruit moth was present in practically 100 per cent of the quinces, often 2 or 3 worms per fruit.

PEACH BORER (Synanthedon exitiosa Say)

New Hampshire

L. C. Glover (September 23): The peach borer is scarce.

Connecticut

W. E. Britton (September 23): The peach borer is moderately abundant.

Georgia

C. H. Alden (September 21): The peach borer is scarce in Cornelia; some fresh injury has been observed.

O. I. Snapp (September 2): The first eggs to hatch this season at Fort Valley were recorded on August 21. This is about two weeks later than last year. Moth emergence has not yet reached the peak.

Florida

J. R. Watson (September 21): The peach borer is moderately abundant.

Indiana

J. J. Davis (September 25): Peach tree borers were reported from Fowler, Kokomo, Krypton, Indianapolis, Campbellsburg, Arboy, and South Bend, from August 30 to September 21.

Tennessee

H. G. Butler (August 31): In 1930 (in Roane County) the late summer increase in adult borer emergence began August 13 and in the following 30 days 84 per cent of the season's emergence occurred. This year this increase has been delayed until August 28.

Oklahoma

C. E. Sanborn (September 22): The peach borer is moderately abundant.

Alabama

J. M. Robinson (September 22): The peach borer is moderately abundant at Auburn and Linden.

Mississippi

C. Lyle and assistants (September 20): Peach borers are from moderately to very abundant throughout the State.

PLUM CURCULIO (Conotrachelus nemophar Hbst.)

New Jersey

R. B. Lott (August 31): The plum curculio is very abundant at Eatontown.

- Virginia W. J. Schoone (September 22): No second brood was produced in breeding cages. There was some injury to unsprayed orchards and light injury to the peaches near the woods in a few orchards.
- Georgia O. I. Sharp (August 29): The second-generation larvae are now entering the soil to pupate. There was a very light second generation this year in Fort Valley.
- C. H. Alden (September 21): Plur curculios are scarce in Cornelia. They are in hibernation. A few adults may be seen.
- Ohio T. H. Parks (September 25): This insect still continues scarce all over the State. Very few blemishes on apples can be attributed to it.
- Indiana J. J. Davis (September 25): The curculio was reported abundant in plums at Fowler August 30.
- Kentucky W. A. Price (September 25): The plum curculio is scarce.
- Minnesota A. G. Ruggles and assistants (September): The plum curculio was reported during the month as very abundant in Lac qui Parle, Hennepin, and Lyon Counties. (Abstract, J.A.H.)
- Missouri L. Haseran (September 28): Worms are more abundant in late peaches than they have been in former years in Columbia. But little feeding has been done by adults.
- Tennessee H. G. Butler (August 31): Adults of the first and second broods emerged from soil at insectary August 21. Overwintering adults taken in jarring early last spring were still depositing a few eggs in August. Harvest infestation by curculio was much less than normal this year in Roane County.
- Oklahoma C. E. Sanborn (September 22): The plum curculio is moderately abundant.
- Alabama J. M. Robinson (August 20): The plum curculio is moderately abundant at Irondale.
- Mississippi State Plant Board, Press Release (August 31): Although a bumper crop of peaches was produced, curculio or worm damage was heavy in unsprayed orchards.
- C. Lyle and assistants (September): The plum curculio is moderately abundant in Tupelo, Lee County. Very prevalent in late varieties of peaches.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Indiana

J. J. Davis (September 25): The shot-hole borer was reported on peach at Lafayette, September 9, and at Fort Wayne on peach and plum, September 14.

Mississippi

State Plant Board, Press Release (August 31): Fruit tree bark beetles were moderately to very abundant in Alcorn and Panola Counties.

PLUM

A GALL MITE (Phyllocoptes fockeni Na. & Tr.)

Idaho

C. Wakeland (August 28): I had previously sent specimens of the mite to Dr. Ewing who wrote me under date of July 31 that he identified the species questionably as P. fockeni Na. & Tr. He says they appear to be a European species which had not been recorded in this country before and he calls it a gall mite rather than a rust mite. We have not seen any effects of the mite as causing galls or blisters, but the leaves of prunes are decidedly russeted and the injury appears to be entirely superficial.

LESSER PELCH BORER (Synanthedon pictipes G. & R.)

Georgia

O. I. Sharp (September 2): There are very few larvae in peach trees now, as it is between generations at Fort Valley. Moths which will produce the overwintering brood of larvae are now emerging.

North Dakota

J. A. Munro (September 21): Plum borer injury has been serious at Mandan. An inspection of a planting containing numerous varieties of plums showed 90 per cent of the Redwing variety injured by the pest. Other varieties were not seriously attacked.

RASPBERRY ET AL.

PEPPER AND SALT MOTH (Arpidae cognataria Guen.)

New York

C. R. Crosby (August 25): Specimen received from a city park, Niagara Falls. It attacks raspberry and currant.

RASPBERRY ROOT BORER (Berberia marginata Harr.)

Washington

J. Wilcox and E. W. Baker (August 21): In an examination for this insect at Puyallup no adults were found, but several unhatched eggs were found on the under surface of raspberry leaves. On August 27 E. W. Baker found unhatched eggs on El Dorado blackberries at Christopher, but on loganberries adjacent to the blackberries no eggs or adults were found.

RASPBERRY FRUIT WORM (Byturus unicolor Say)

Washington

J. Wilcox (September 2): Soil siftings at Puyallup showed 30.4 per cent to be in the first $\frac{1}{4}$ inch. None was found below 4 inches. Percentages in the various stages of development were: 56.6 per cent adults, 34.8 per cent pupae, and 8.7 per cent larvae. No berries were left on the vines.

BROWN SOFT SCALE (Lecanium coryli L.)

Washington

S. E. Crumb (September 17): In Texas blackberries the older canes were plastered with a Lecanium, probably canreae L. Half and sometimes three quarters of these canes were dead, probably due to the scale, although there is a possibility that these canes naturally die back at this time of year.

A MITE (Eriophyes essigi Hassan)

Washington

W. W. Baker (July 13): Wild black berries (Rubus leucodermis) around Puyallup are rottled, red, white, and black by this mite. This species has never been observed before on this host.

J. Wilcox and W. W. Baker (August 22-24): Several severe infestations to Evergreen and Himalaya blackberries have developed near Puyallup and Bellevue. Bush blackberries of the varieties Texas, Snyder, El Dorado, Ward, and Kittatinny have been examined near Puyallup and Sumner and found to contain mites, but no typical red berry symptoms were observed. Red raspberries and loganberries were examined and the mite found, but no red berry symptoms.

GRAPE

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

Ohio

T. H. Parks (September 25): Grape berry moths are causing considerable injury in some commercial vineyards at the west end of Lake Erie. The degree of infestation is as high as 30 to 40 per cent in a few badly infested vineyards, but does not average high over the western Ohio grape belt. The situation is not so bad as it has been in some previous years.

GRAPE LEAFHOPPER (Erythroneura cores Say)

Iowa

C. N. Ainslie (September 14): At Sioux City several varieties of this species have done severe injury to grape, woodbine, and other vines, destroying their appearance and vitality. They are present in swarms this fall, favored by the recent dry hot weather.

Nebraska M. H. Srenk (August 1 to 31): The grape leafhopper, which early in the season seemed present in normal numbers only, developed a much greater than normal abundance during August, and the woodbine vines in the cities of eastern Nebraska were badly discolored, if not largely defoliated, during the month by these pests.

Mississippi State Plant Board, Press Release (August 31): The grape leafhopper was very abundant in George County.

Utah G. F. Knowlton (September 8): The grape leafhopper continues to become more damaging to Virginia creepers, and in some cases to grapes. Numerous complaints were received at this Station concerning this pest in northern Utah.

COTTONY MAPLE SCALE (Fulvinaria vitis L.)

Indiana J. J. Davis (September 25): Cottony maple scale reported on grape at Monon August 27. The upper surfaces of the leaves were black with sooty mold fungus, indicating a heavy scale infestation. This insect was also reported from Ridgeville September 18.

CURRENT

IMPORTED CURRENT WORM (Pteronidea ribesi Scop.)

Wisconsin E. L. Chambers and assistants (June): Worms reported as very abundant on current bushes in Portage County.

BLUEBERRY

BLUEBERRY MAGGOT (Rhagoletis pomonella Walsh)

Maine C. R. Phipps (September 24): Blueberry maggots are very abundant throughout the State.

PECAN

BLACK PECAN APHID (Myzocallis furibennellus Fitch)

Georgia J. B. Gill (September 26): The black pecan aphid was very destructive during the month of August and the first week in September in pecan orchards throughout southwestern Georgia. Very serious defoliation occurred in some orchards.

Alabama J. M. Robinson (September 22): The black pecan aphid is very abundant, and pecan trees are being defoliated at Auburn.

Mississippi State Plant Board (August 31): The black pecan aphid was moderately abundant in George and Stone Counties.

C. Lyle and assistants (September): Rather heavy infestations of the black pecan aphid were observed at Durant and Lexington, on September 7 and 8, by Inspector D. T. Gires. Reported as very abundant at Ocean Springs, and in Jackson County some pecan trees are being defoliated. Moderately abundant around Gulfport during the past two weeks.

AN APHID (Monellia costalis Fab.)

Georgia

J. B. Gill (September 26): This aphid has been unusually abundant in some pecan orchards, but did not appear to cause defoliation or injury to the foliage, as was the case with the black pecan aphid.

A STINK BUG (Brochymena quadripustulata Fab.)

Georgia

T. L. Bissell (September 22): Adults and large nymphs of Brochymena quadripustulata Fab. were jarred in abundance from pecan trees during August and September at Strouds, Monroe County.

A CASE BEARER (Acrobasis palliolella Rag.)

Georgia

J. B. Gill (September 26): For the past three weeks larvae have been going into winter quarters and constructing their hibernacula on the buds of pecan trees. Infestation by this species is not as severe as it has been in some years.

PECAN CASE BEARER (Acrobasis juglandis LeB.)

Mississippi

State Plant Board (August 31): The pecan leaf case bearer was reported in Adams, George, and Jackson Counties.

H. Gladney (September 20): The pecan leaf case bearer is moderately abundant at Ocean Springs.

PECAN CIGAR CASE BEARER (Haplontilia caryaefoliella Cler.)

Mississippi

C. Lyle (September 1): Pecan leaves were received from Laurel. Only slight injury was observed on pecans. Seemingly these insects prefer varieties of pecans that are subject to scabbing. (Det. by A. Busck, September 11, as pecan miner, Careraria caryaefoliella Cler.)

HICKORY SHUCK WORM (Laspeyresia caryana Fitch)

Mississippi

C. Lyle and assistants (September): The pecan shuck worm is scarce at Ocean Springs. Shuck worms had caused considerable dropping of immature pecans in the vicinity of Pascagoula and Moss Point, up to September 10.

TWIG GIRDLER (Oncideres cingulatus Say)

Virginia

C. R. Willey (September 28): We are getting our usual complaints about the work of the twig girdler on hickory, pecan, elm and persimmon.

North Carolina

W. A. Thomas (September 2): Adults began emerging from a field cage near the laboratory at Chadbourn today. The larval mortality in the severed twigs collected last fall was very high.

Georgia

T. L. Bissell (September 22): Took one adult male from pecan August 22, first record of the season, at Milner. Have not as yet observed any cutting of twigs.

J. B. Gill (September 26): Adults of the pecan twig girdler are now showing up in pecan orchards and are causing considerable damage by severing the branches of trees adjacent to woodlands.

Mississippi

H. Dietrich (September 20): The hickory girdler reported at Lucedale on September 15 had all emerged, but no new girdled branches have been found so far.

PECAN WEEVIL (Balaninus caryae Horn)

Alabama

J. M. Robinson (August 20): The pecan weevil is moderately abundant at Auburn, Camp Hill, and Lanett.

Georgia

T. L. Bissell (September 22): Oviposition has practically ceased, though a few adults may be found in trees in Milner. Weevil infestation in prematurely dropping Schley pecan nuts for July, August, and September was 7 per cent. Infestation in same orchard in 1930 was 22 per cent.

OBSURE SCALE (Chrysomphalus obscurus Comst.)

Mississippi

C. Lyle and assistants (September): The obscure scale is found pretty generally attacking pecans in Tallahatchie County.

CITRUS

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Georgia

J. B. Gill (September 26): The citrus whitefly is moderately abundant at Albany.

Florida

J. R. Watson (September 21): The citrus whitefly is very abundant. The September brood is very large and about 10 days late.

Alabama J. M. Robinson (August 20): The citrus whitefly is very abundant on shrubbery at Auburn. (September 22): Moderately abundant in Ashford.

Mississippi State Plant Board (August 31): The citrus whitefly was reported on citrus in the southern part of the State and on ornamental plants in other sections.

Louisiana W. E. Hinds (September 26): Citrus whitefly is very abundant.

FLORIDA RED SCALE (Chrysomphalus ficus Ashr.)

Florida J. R. Watson (September 21): The Florida red scale is moderately abundant.

Mississippi J. P. Kislanko (September 21): The Florida red scale is moderately abundant in greenhouses at Hattiesburg, Forest County.

CALIFORNIA RED SCALE (Chrysomphalus aurantii Mask.)

Florida J. R. Watson (September 21): The California red scale is becoming abundant on citrus in Pinellas County. This scale has been in Florida for many years, but has never given us any trouble before, but in this one county, at least, it is evidently building up a rather heavy infestation.

Texas F. L. Thomas (August 15): S. W. Clark reported that the red scale has not caused so much damage as usual at Weslaco. Infestations are light and generally scattered.

PURPLE SCALE (Lepidosaphes beckii Newm.)

Florida J. R. Watson (September 21): The purple scale is moderately abundant.

Mississippi C. Lyle and assistants (September): The purple scale is scarce in the eastern part of Jackson County, and moderately abundant at Gulfport, Harrison County. It is also moderately abundant on citrus at Ocean Springs.

California Monthly News Letter, Los Angeles County Agricultural Commissioner (July 15): The purple scale hatch in years past has occurred some time during the latter part of September, October, or November in Los Angeles County. This season, however, the young scale commenced hatching quite rapidly the middle of August. This early hatching makes a condition quite favorable for scale control in many orchards in the above

area in that both the black and purple scales can be treated at the same time. Infestations in this county are almost entirely confined to the southern citrus area around Downey, Rivera, and Whittier.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Texas

F. L. Thomas (September 1): S. W. Clark reported that the cottony-cushion scale is becoming quite abundant throughout the whole Valley around Weslaco. Reports show it to be very generally distributed and some damage evident.

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

Florida

E. W. Berger and G. B. Merrill (September 21): This insect occurs in localized areas in some groves.

A LONGHORN BEETLE (Oncideres texanus Horn)

Texas

F. L. Thomas (September 10): Specimens continue to come in on citrus trees.

CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

Florida

J. R. Watson (September 21): The citrus rust mite is moderately abundant. More than usual for September.

Mississippi

C. Lyle and assistants (September): The citrus rust mite is scarce in the eastern part of Jackson County, and in Stone County. It is moderately abundant at Gulfport, Harrison County.

CITRUS RED SPIDER (Paratetranychus citri McG.)

California

Monthly News Letter, Los Angeles County Agricultural Commissioner (July 15): Although we have had high temperatures over a longer period of time than in an average year, the infestations have continued to be heavy in some groves throughout the summer months. The humid condition that has prevailed during the high temperature may be the reason why the insects have survived and in some instances built up rather severe infestations at this time.

AN ANT (Atta insularis texana Buckl.)

Texas

F. L. Thomas (September 5): Reports received indicate more damage from cut ants than usual in Weslaco.

CARDIN'S WHITEFLY (Aleurodicus (Metalleurodicus) cardini Back)

Florida

G. B. Merrill (September 18): This insect has been found on several occasions during the past fourteen years along the Florida coast from New Smyrna to Key West on guava bushes.

TRUCK - CROP INSECTS

MOLE CRICKETS (Gryllotalpa spp.)

Florida J. R. Watson (September 21): Mole crickets are giving considerable trouble to truck fields, especially in Plant City and Sanford.

Nebraska M. H. Swenk (August 1 to 31): The common mole cricket (G. hexadactyla Perty) has been more numerous in Nebraska this season than ever before. During August inquiries were received from as far east as Cedar and Saline Counties to as far west as Sheridan, Thomas, and Keith Counties.

Alabama J. M. Robinson (September 22): Mole crickets are very abundant and destroying many gardens in Grove Hill.

BLISTER BEETLES (Meloidae)

North Carolina C. H. Brannon (September 12): Various species of blister beetles are causing an unusual amount of damage to truck crops and flowers over the State.

W. A. Thomas (September 5): Several complaints have reached the laboratory of the destructive work of the black blister beetle (Epicauta pennsylvanica DeG.) on English ivy and potato plants at Chadbourn. The infestations seem to be scattered more or less over the county. This insect was also observed defoliating clematis.

Indiana J. J. Davis (September 25): Reports of blister beetle damage continued to be received during the past month. During the State fair, September 5 to 12, hundreds of people inquired about blister beetle control. One morning from 8 to 11 a. m. sixty requests for information on this insect were made at the insect booth at the Purdue Building at the State Fair. Specific letter inquiries all referred to the black blister beetle, (E. pennsylvanica DeG.).

Nebraska M. H. Swenk (August 1 to 31): Blister beetles continued to be reported as injurious to potatoes during the month of August, although instead of E. alenica Fab., E. cinerea Forst. and our two common species of Macrobasis, that were the dominant species in July, the August reports referred more to E. maculata Say and E. pennsylvanica DeG.

Alabama J. M. Robinson (September 22): The margined blister beetle (E. marginata Fab.) is abundant on potatoes in Foley.

Mississippi C. Lyle and assistants (September): Striped blister beetles (E. vittata Fab.) are very abundant in Tate, De Soto, Panola, Tunica, Quitman, and Marshall Counties. On September 5 specimens of E. marginata were received from Utica, where they were reported as causing moderate injury to turnips. On August 24 specimens of E. lemniscata were received from Sallis, where they were reported as causing some injury to turnips.

New Mexico J. R. Eyer (September 18): Blister beetles, E. pennsylvanica DeG., E. maculata Say, Lytta stygica Lec., Macrobasis longicollis Lec., are very abundant and are particularly injurious to potatoes, cotton, alfalfa, and beans.

FALSE CHINCH BUG (Nysius ericae Schill.)

Nebraska M. H. Swenk (August 1 to 31): The false chinch bug badly damaged a 4-acre cabbage field in Lincoln County during the middle of August.

Mississippi C. Lyle (September 22): Nysius ericae was reported as abundant on turnips at Greenwood on August 18, and as causing severe injury to Japanese turnips at Hattiesburg on August 24.

New Mexico J. R. Eyer (September 18): The false chinch bug is very abundant in all parts of the State, being particularly injurious to corn and alfalfa.

Texas S. W. Clark (August 28): No damage has been reported as caused by Nysius ericae minutus Uhler, but the bugs were noted as abundant in grasslands around Weslaco in July.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Iowa H. E. Jaques (August 27): The Colorado potato beetle is from moderately to very abundant in northwestern Iowa.

Oklahoma C. E. Sanborn (September 22): The Colorado potato beetle is very abundant.

Alabama J. M. Robinson (August 20): The Colorado potato beetle is scarce at Auburn.

Mississippi C. Lyle and assistants (September): The Colorado potato beetle is very abundant on potatoes in the northern and north-eastern sections of the State.

Wyoming C. L. Corkins (August 27): The Colorado potato beetle is moderately abundant.

Utah G. F. Knowlton (September 22): The Colorado potato beetle is apparently eliminated at Ogden.

BEAN

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Connecticut N. Turner (September 15): The second generation killed about half of the late string beans in New Haven and Fairfield Counties. Only well-sprayed beans had a good crop. Heavy damage was also seen in the extreme eastern part of the State. Lima beans were not so badly injured as string beans. The second generation is now emerging in numbers. There was serious damage in parts of Litchfield and Hartford Counties.

 W. E. Britton (September 23): The Mexican bean beetle is very abundant.

Rhode Island A. E. Stene (September 24): The Mexican bean beetle is moderately abundant.

New York N. Y. Agr. Expt. Sta., Geneva (August 27): The Mexican bean beetle is scarce in western New York.

 C. R. Crosby (September 1): Specimens of the Mexican bean beetle were received from Cheviot on August 31, and from Kingston September 1.

New Jersey R. B. Lott (August 31): The Mexican bean beetle is very abundant in Ligonier.

 J. N. Knull (September 7): The Mexican bean beetle is very abundant in Franklin and Cumberland Counties and is destroying the late lima and bush beans.

Delaware L. A. Stearns (September 26): Considerable damage has been done by the late brood of the Mexican bean beetle.

Maryland E. N. Cory (September): The Mexican bean beetle is doing considerable damage throughout the State.

West Virginia L. M. Peairs (August 29): The Mexican bean beetle is moderately abundant at Morgantown.

Virginia H. G. Walker (September 25): The Mexican bean beetle is very abundant.

North Carolina W. A. Thomas (September 1): Both lima and snap beans around Chadbourn have suffered severely from Mexican bean beetle activity during the past week. Most of these plants are almost

completely defoliated and dying. The beetle is also attacking cowpeas in close proximity to the beans, but the injury is not yet severe. (September 21): A few rows of cowpeas in a home garden observed today at Lumberton were almost completely defoliated by this insect. The cowpeas were adjacent to pole limas, which have been practically destroyed.

C. H. Brannon (August 15 to 31): Practically all unsprayed beans were destroyed in the Wilmington trucking section this season. Severe damage is prevalent all over the State.

South Carolina A. Lutken (September 26): The Mexican bean beetle is very abundant generally.

Georgia C. H. Alden (September 21): The Mexican bean beetle is scarce in Cornelia. The infestation was light this year.

Ohio T. H. Parks (September 26): The Mexican bean beetle is very abundant on late string bean varieties.

Indiana J. J. Davis (September 25): The Mexican bean beetle was reported as destructive at Liberty August 18, Winona Lake August 24, and Logansport September 3. These destructive infestations in northern Indiana are doubtless due in part to the mild winter of 1930-31.

Kentucky W. A. Price (September): The Mexican bean beetle has come back strongly this year, following its decimated numbers in 1930, and bids fair to be a real pest in this State in 1932. There is a large population going into hibernation.

Tennessee J. U. Gilmore and J. Milam (September 24): The Mexican bean beetle is less abundant than usual on several kinds of beans at Clarksville.

Alabama J. M. Robinson (September 22): The Mexican bean beetle is moderately abundant in Auburn.

Mississippi C. Lyle and assistants (September): The Mexican bean beetle is moderately abundant in the northeastern part of the State, and very abundant in the northeast corner of Monroe County.

Wyoming A. G. Stephens (September 21): The Mexican bean beetle is scarce in the southeastern part of Wyoming.

C. L. Corkins (August 27): The Mexican bean beetle is scarce on wheat land. There have been no reports of damage all season.

New Mexico J. R. Eyer (September 18): The Mexican bean beetle is reported from the northern part of the State.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

- Mississippi G. I. Worthington (September 18): The bean leaf beetles are general and unusually heavy infestations are occurring on beans and field peas this season at Cleveland.
- C. Lyle (September 22): Medium injury to beans was reported from Durant on September 5. Severe injury to beans was observed at A. & M. College on September 10.

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

- Alabama J. M. Robinson (September 22): The belted bean beetle is very abundant in Atmore, Foley, and Fairhope.
- Mississippi H. Dietrich (September 20): The banded Diabrotica was badly skeletonizing snap beans at Richton and Lucedale early in the month.

FULLER'S ROSE BEETLE (Pantomorus fulleri Horn)

- North Carolina W. A. Thomas (September 24): An extremely heavy infestation of the Fuller's rose beetle was observed on an experimental planting of beans near the laboratory at Chadbourn on September 14. As many as a dozen specimens were present on a single hill of beans. Late in the afternoon these plants were heavily dusted. Twenty four hours later, numerous dead specimens were observed beneath the plants. There has been no recurrence of the attack.

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

- Mississippi C. Lyle (September 22): On September 4 a correspondent at Valley sent to us specimens with the statement that they were stinging young peas and beans and causing them to fall from the vines.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

- North Carolina W. A. Thomas (September 14): Late beans in the vicinity of the laboratory at Chadbourn are being seriously injured. The stalk is entered near the base of the plant and may be tunneled both upward and downward, causing the plant to die. The opening in the stalk is covered with a web in which the larva rests when not feeding.

LIMA BEAN VINE BORER (Monoptilota pergratialis Hbst.)

- North Carolina W. A. Thomas (September 3): There is an unusually heavy infestation of this insect on lima bean vines this season about Chadbourn. For several years past only a few infested vines could be observed, but now the infestation is general and some vines carry as many as three larvae.

BEAN THRIPS (Holothrips fasciatus Perg.)

Utah

G. F. Knowlton (September 16): A few fields of beans in Logan have been observed to be suffering from bean thrips damage.

: CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

Virginia

H. G. Walker (September 25): The imported cabbage worm and the cabbage looper are moderately abundant and have been causing some damage to broccoli at the experiment station at Norfolk.

Indiana

J. J. Davis (September 25): The cabbage worm was destructive at South Bend September 2.

Ohio

T. H. Parks (September 26): The imported cabbage worm is very abundant.

Minnesota

A. G. Ruggles and assistants (September): The imported cabbage worm was quite generally reported throughout the State, seven counties reporting it as unusually abundant. (Abstract, J.A.H.)

Iowa

H. E. Jaques (September 24): The imported cabbage worm is very abundant, especially in northern Iowa.

Missouri

L. Haseman (September 23): This pest has been serious all summer in Columbia, and is still abundant on late cabbage and turnips.

Nebraska

M. H. Swenk (August 1 to 31): The cabbage worm continued to be more than usually troublesome during the month of August.

CABBAGE LOOPER (Autoanropa brassicae Riley)

Minnesota

A. G. Ruggles and assistants (September): The cabbage looper was reported as very abundant in southern St. Louis County. (Abstract, J.A.H.)

Mississippi

C. Lyle and assistants (September): The cabbage looper has been observed feeding on turnips at Booneville, Prentiss County, and Corinth, Alcorn County, during September, and doing severe damage to collards near Ellisville, Jones County. Slight injury to turnip greens was reported from Cooksville on September 10.

Texas

S. W. Clark (September 10): Early plantings of cabbage seed beds have been severely infested by the cabbage looper at Weslaco.

HARLEQUIN BUG (Murgantia histrionica Hahn)

- Virginia H. G. Walker (September 25): The harlequin bug is rather abundant and has been causing considerable injury to various crops in the Norfolk area.
- Bertha M. Bennett (October 1): Hundreds of these bugs are congregating on Cleome or spider plant at Lyon Park. No evidence of damage as yet.
- North Carolina W. A. Thomas (September 1): This insect has increased in numbers and activity very rapidly during the past few weeks. Collards are now dying in some fields from these attacks. Egg laying seems to be extremely heavy at this time.
- C. H. Brannon (August 20): The harlequin bug is causing serious damage to corn blades in the vicinity of Wilmington, as well as unusually serious damage to the common host plants.
- South Carolina A. Lutken (September 26): The harlequin bug is very abundant generally.
- Indiana J. J. Davis (September 25): The harlequin cabbage bug was destructive to turnips and other garden plants, according to a report from Corydon, August 28.
- Kentucky W. A. Price (September 25): The harlequin cabbage bug was reported as troublesome at Burnside.
- Oklahoma C. F. Stiles (September 28): The harlequin bug has been recently reported as moderately abundant from Dewey County, where it has completely destroyed the late cabbage crop. It has also been reported from other sections of the State.
- Mississippi C. Lyle (September 22): The harlequin bugs have been very abundant in various sections of the State during the past few weeks. Many complaints in regard to injury caused by them to fall turnips and collards have been received.
- New Mexico J. R. Eyer (September 18): The harlequin cabbage bug is very abundant in the southern and western parts of the State.

CABBAGE WEEWORM (Hellula undalis Fab.)

- North Carolina W. A. Thomas (September 7): The cabbage webworm is now giving considerable trouble on spring collards being grown for winter use. The larva enters the head and tunnels the upper portion of the stalk and even some leaf stems. This work usually begins just above where the leaves are attached to the stalk. Practically all work is covered with web.

South Carolina A. Lutken (September 26): The cabbage webworm is causing considerable damage to cruciferous crops.

CUCUMBERS

PICKLE WORM (*Diaphania nitidalis* Stoll)

South Carolina W. J. Reid, Jr. (September 23): The pickle worm, together with the melon worm, *Diaphania hualinata* L., is causing severe damage to fall squash plantings in the Charleston area. All unpoisoned fields are being abandoned by the growers. The production of squash during the fall months is rendered very uncertain as a result of almost certain attacks by the pickle worm and melon worm. The pickle worm is attacking the buds, stalks, leaf stems, and fruit of squash plants in this vicinity. Many plants are killed before reaching the fruiting stage. This season the injury is more severe than usual. Drought has aggravated the insect injury.

Missouri L. Haseman (September 28): A rather severe outbreak has just appeared at Columbia. The extent of damage done over the State not yet known.

Louisiana W. E. Hinds (September 26): Pickle worms have occasioned numerous complaints to late crops, particularly squash. The infestation is very heavy in some localities and the prospects for a crop of marketable squashes is very small.

Alabama J. M. Robinson (August 20): The pickle worm is moderately abundant at Andalusia; adults are swarming.

Mississippi State Plant Board, Press Release (August 31): The pickle worm, which tunnels through cucurbits, except melons, has been very destructive.

STRIPED CUCUMBER BEETLE (*Diabrotica vittata* Fab.)

Pennsylvania E. N. Worthley (September 16): The striped cucumber beetle is very abundant in Centre County, as is also the squash bug.

North Dakota J. A. Munro and assistants (September 15): The striped cucumber beetle is scarce in Grand Forks County and moderately abundant in Kidder County.

Iowa E. E. Jaques (September 24): The striped cucumber beetle is moderately abundant in Winnebago, Wright, Delaware, Iowa and Henry Counties, and very abundant in Clay and Humboldt Counties.

Oklahoma C. E. Sanborn (September 22): The striped cucumber beetle is moderately abundant.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Mississippi C. Lyle and assistants (September): The spotted cucumber beetle is very abundant in Tupelo, Lee County, where it has injured bean vines in several fields.

Louisiana W. E. Hinds (September 26): Adults are becoming common again following scarcity during mid-summer.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror L.)

Oregon Oreg. Agr. Coll., Insect Pest Report (July): The twelve-spotted cucumber beetle is moderately abundant in Coos and Josephine Counties and very abundant in Polk County.

MELONS

MELON APHID (Aphis gossypii Glov.)

Nebraska M. H. Swenk (August 1 to 31): All through the month of August many more than the usual number of reports of injury to melon and cucumber vines by the melon aphid were received. These related chiefly to the central sections of the State, though there were some reports also from the eastern and western sections.

Missouri L. Haseman (September 28): This pest has been serious this year and has continued to be abundant up to the present time on late cucumbers or melons.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Indiana J. J. Davis (September 25): The squash bug seems to be generally abundant. Specific reports were received of damage to melons and pumpkins at Washington August 22, to squash at Liberty August 14, and to pumpkins at Crawfordville September 15.

Illinois W. P. Flint (September 23): Adults of the squash bug are very numerous at the present time, being much more abundant than for a number of years.

Kentucky W. A. Price (September 25): Squash bugs were generally prevalent over the State, and did notable damage at Murray, Lexington, and Wilmore.

Iowa C. N. Ainslie (September 14): Squashes, pumpkins and all other cucurbits have suffered severely in western Iowa this season. It has multiplied rapidly wherever present. Oviposition was observed to be continuous all summer. Adults will probably hibernate in unusual numbers. Natural enemies appear to be absent in this region and methods of artificial control have but slight efficacy.

H. E. Jaques (September 24): The squash bug is more than ordinarily abundant in many regions.

Missouri L. Haseman (September 28): The late generation is attracting attention over the State on pumpkins, squashes, and late cucumbers.

Kansas H. R. Bryson (September 23): The squash bug is very abundant in practically all counties.

Mississippi State Plant Board, Press Release (August 31): Squash bugs were responsible for many complaints.

New Mexico J. R. Eyer (September 18): The squash bug is very abundant in the southern and western parts of the State.

SQUASH BORER (Melittia satyriniformis Hbn.)

Indiana J. J. Davis (September 25): The squash vine borer was destructive to squash at Liberty August 14, and at Lafayette early in September.

Kentucky W. A. Price (September 25): The squash vine borer was reported doing serious damage to squash at Wilmore.

CELERY

GREENHOUSE LEAF TYER (Phlyctaenia rubigalis Guen.)

Michigan R. H. Pettit (September 21): The celery leaf 'tyer is more plentiful than it has ever been before in Michigan. It seems to be present from Benzie County in the north clear down to the Indiana State line.

BEEETS

BEEET LEAFHOPPER (Eutettix tenellus Baker)

Wyoming A. G. Stephens (September 21): The beet leafhopper is scarce in the eastern and east-central parts of Wyoming.

Utah G. F. Knowlton (September 22): The beet leafhopper is from moderately to very abundant in northern Utah. The damage is spotted, ranging from slight to severe.

BEET WEBWORM (Loxostege sticticalis L.)

North Dakota J. A. Munro (August 22): The only report of the beet webworm was from Renville County and stated that the moths are so thick that when one walks through the tall grass or sweet clover they rise in clouds. There have always been a few of them but this year they are very numerous.

North Dakota J. A. Munro and assistants (September): The sugar beet webworm was quite abundant, very thick in spots, and did some damage to gardens. It fed almost entirely on Russian thistle.

SALT-MARSH CATERPILLAR (Estigmene acrea Drury)

Ohio T. H. Parks (September 25): These larvae were attacking sugar beets in Ottawa County during September. They came too late to injure the crop seriously, but the beets tops presented a very ragged appearance due to the feeding of the larvae. No other crops in the neighborhood were reported as being infested.

ZEBRA CATERPILLAR (Mamestra picta Harr.)

North Dakota J. A. Munro (September 21): Tiger worms (M. picta Harr.) were reported on August 22 as damaging sunflowers, corn, and potatoes at Watford City. Another report, received under date of August 25, stated that the worms were very abundant at Hope and that they were causing injury to corn.

Utah G. F. Knowlton (September 14): The zebra caterpillar has caused moderate damage to sugar beets throughout the season in most portions of northern Utah where beets are grown.

TURNIPS

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Ohio T. H. Parks (September 25): Serious injury by turnip aphids was observed in a field near Vermilion, September 24. The aphids had entered the field from a nearby orchard and had traveled about one-third way across the turnips before checked by lady beetles and their larvae. At the time of observation the aphids were apparently under control by the predators.

Tennessee J. U. Gilmore and J. Milan (September 24): Turnip aphids destroyed many earlier seedings of fall and winter turnips.

Mississippi C. Lyle and assistants (September): The turnip louse is scarce on fall turnips.

SOUTHERN CABBAGE WORM (Pieris protodice Bdv. & Lec.)

Mississippi

C. Lyle (September 22): Larvae identified by J. M. Langston as P. protodice were observed on turnip greens at Cooksville and Itta Bena on September 15. Only slight injury was reported in each case. Severe injury was observed on turnips at A. & M. College on September 21.

CROSS-STRIPED CABBAGE WORM (Evergestis rimosalis Guen.)

Mississippi

C. Lyle (September 22): Larvae identified by J. M. Langston as Evergestis rimosalis were reported moderately abundant on turnip greens at Itta Bena on September 11.

PARSLEY

PARLSEY WORM (Papilio polyxenes Fab.)

Mississippi

C. Lyle (September 22): On August 31 a correspondent at Oxford sent us four larvae of Papilio polyxenes with the information that they were collected from parsley. The extent of the injury was not reported.

STRAWBERRY

STRAWBERRY ROOT WORM (Paria canella Fab.)

North Carolina

W. A. Thomas (August 11): Several of the older fields of strawberries have been almost completely destroyed within the past few weeks by this insect eating the foliage. Young plants during the past year seemed to be almost entirely exempt from these attacks.

GRAPE COLASPIS (Colaspis brunnea Fab.)

North Carolina

W. A. Thomas (August 25): A rather light infestation of this insect is present on strawberries, snap beans and soybeans and is causing some damage.

A FLEA BEETLE (Haltica litigata Fall)

Maryland

E. N. Cory (September 24): This beetle is doing considerable damage to strawberries.

MINT

MINT FLEA BEETLE (Longitarsus menthaphagus Gent.)

Indiana J. J. Davis (September 25): The mint flea beetle was reported from LaPorte August 26 and from North Liberty September 11. The mint growers of northern Indiana are becoming much alarmed over this new pest.

TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

North Carolina C. H. Brannon (August 25): The extremely light damage to tobacco beds in the spring was offset by extremely serious damage to plants in the field, especially the latter part of the season.

Tennessee J. U. Gilmore and J. Milam (September 24): The tobacco flea beetle necessitated considerable employment of insecticides at Clarksville. Burley tobacco was especially subject to attack.

POTATO TUBER WORM (Phthorimaea operculella Zell.)

Tennessee J. U. Gilmore and J. Milam (September 24): The potato tuber moth is more abundant than in the average year. It is attacking tobacco.

HORNWORMS (Protoparce spp.)

North Carolina C. H. Brannon (August 25): This is the worst outbreak the State has experienced in many years. Both early and late damage was noticed.

W. A. Thomas (September 4): These larvae are unusually abundant in the old tobacco fields and in many cases have stripped all foliage from the stalks and are now migrating in search of more food. Hundreds were observed crossing a hardsurfaced highway today.

TOBACCO BUDWORM (Heliothis virescens Fab.)

North Carolina C. H. Brannon (August 20): The budworm damage to tobacco this season is the most severe that has been noticed for many years.

F O R E S T A N D S H A D E - T R E E I N S E C T S

FLAT-HEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Indiana

J. J. Davis (September 25): The flat-headed borer was reported during September on apple at Indianapolis and Martinsville, on Norway maple at Huntington and Wabash, on hard maple at South Bend, and on maple (kind not specified) at Garrett, Paragon, and Monon.

Nebraska

M. H. Swenk (August 1-31): More than the usual number of complaints of injury to trees by flat-headed borers were received during the period here covered.

Mississippi

H. Dietrich (September 20): Full-grown larvae were dug from the base of a live pecan tree near Piave on September 15.

HAG MOTH (Phobetrus pithecius S. & A.)

New York

C. R. Crosby (August 28): Specimens were received from Boonville.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

South Carolina

A. Lutken (September 26): Bagworms have been unusually abundant on arborvitae this summer.

Indiana

J. J. Davis (September 25): Bagworms were reported attacking arborvitae at Terre Haute and Indianapolis the last of August.

Kentucky

W. A. Price (September 25): The bagworm has caused much damage to evergreens in the State this year. One nurseryman reported having picked and destroyed 15 gallons of the bags.

Kansas

H. R. Bryson (September 23): Dr. R. C. Smith reports bagworms present at Manhattan.

H. B. Hungerford (September 28): The bagworm has damaged cedars in some places in Douglas County this season.

Alabama

J. M. Robinson (August 20): The bagworm is moderately abundant on arborvitae at Demopolis.

Mississippi

J. Milton (September 21): Many complaints were received during the latter part of August and the first part of September in regard to the bagworm. It has been very abundant on arborvitae in Corinth.

FALL WEBWORM (Hyphantria cunea Drury)

- Vermont H. L. Bailey (September 28): Work of the fall webworm came very much into evidence during the late summer throughout much of the State. Some trees were nearly covered by webs in the southeastern section of the State.
- Rhode Island A. E. Stene (September 24): The fall webworm has been more abundant this year than in any other season during the last 20 years.
- Connecticut W. E. Britton (September 24): H. cunea is prevalent throughout the State but particularly abundant in New London, Tolland, and Hartford Counties. Hickory and ash seem to be severely infested and many trees are stripped.
- Pennsylvania H. M. Worthley (September 26): Fall webworms are very abundant in Mifflin, Juniata, and Cumberland Counties. Very large webs are evident on locust for miles along the Juniata River.
- Delaware L. A. Stearns (August 24): Fall webworms are unusually abundant, especially in northern Delaware.
- Virginia C. R. Willey (September 28): Fall webworms are rather numerous in Richmond on a number of hosts. They seem to prefer Ailanthus.
- Georgia J. B. Gill (September 26): The fall webworm has been less troublesome than usual in pecan orchards during August and September.
- Mississippi C. Lyle and assistants (September): During September this insect increased somewhat in pecan orchards, but on the whole the damage was much less conspicuous than usual. (Abstract, J.A.H.)
- Louisiana W. E. Hinds (September 26): Pecan trees are being attacked less than usual.

GIPSY MOTH (Perthetria dispar L.)

- Rhode Island A. E. Stene (September 24): Egg clusters are more abundant than in either of the last two years.

A PSOCID (Ceratipsocus sp.)

- Mississippi H. Dietrich (September 20): A psocid (Ceratipsocus sp., det. J. M. Langston) is present in large colonies on the bark of pecan, oak, and scuppernong at Lucedale. They do no harm, but are noticed by many, and consequently inquiries are numerous.

ASH

ASH BORER (Podosesia fraxini Luger)

North Dakota

J. A. Munro (September 21): The ash borer is very abundant at Mandan. Numerous reports have been received of its injury to plantings in several other portions of the State. Mr. E. J. George writes as follows: "While visiting the southwestern part of the State the last week in August I found practically every ash planting infested. No serious breakage or killing has resulted at present (September 2). It would appear, however, that damage will result in the near future, as the trees are badly infested."

WOOLLY BEECH APHID (Prociphilus imbricator Fitch)

Maryland

W. M. Davidson (September 6): Woolly aphids infesting large numbers of native beech along the northwestern branch of the Anacostia River. In cursory observation the only predators seen were a few large larvae of Fenisea tarquinius Fab.

BIRCH

BIRCH LEAF MINER (Fenusa pumila Klug)

Maine

C. R. Phipps (September 24): The birch leaf miner is very abundant throughout the State.

BIRCH SKELETONIZER (Bucculatrix canadensisella Chamb.)

Maine

H. B. Peirson (September 25): The birch leaf skeletonizer was reported August 26 as heavily infesting birch in eastern Maine.

A SAWFLY (Pontania pectoralis Marlatt)

Maine

H. B. Peirson (September 25): A birch sawfly was reported August 23 as locally abundant on birch at Oquossoc.

AN APHID (Calaphis sp.)

Maine

H. B. Peirson (September 25): A green birch aphid was reported August 26 as very abundant on birch at Caratunk.

BOXELDER

BOXELDER BUG (Leptocoris trivittatus Say)

Delaware

L. A. Stearns (September 19): Boxelder bugs have been reported from Laurel.

- Indiana J. J. Davis (September 25): Boxelder bugs were reported abundant on boxelder trees at Crown Point September 22. Most of the specimens seen were adults.
- Illinois W. P. Flint (September 23): Reports of infestation are now beginning to come in. Apparently the bugs are a little more numerous than usual.
- North Dakota A. L. Morling (September 17): Boxelder bugs are moderately abundant in McLean County.
- Iowa C. N. Ainslie (September 14): This pest has been multiplying for the past two or three years and this fall is gathering in great red patches in sunny spots on boxelder trees around Sioux City. Adults are uncommon but nymphs abound by the million.
- Nevada G. G. Schweis (September 25): Mr. Lee Burge of this department reports large numbers of boxelder bugs present in southern Nevada and doing damage to boxelders in the vicinity of Las Vegas.

BOXWOOD LEAF MINER (Monarthropalpus buxi Labou.)

- Ohio E. W. Mendenhall (September 3): The boxwood leaf miner has been very bad in one of the nurseries at Marietta.

CATALPA

CATALPA SPHINX (Ceratonia catalpae Bdv.)

- Virginia C. R. Willey (September 28): We had quite a few calls asking for control the first of the month, indicating the usual presence in Richmond of this insect.
- Ohio E. W. Mendenhall (September 4): Caterpillars are doing some damage to Catalpa bungei in a nursery in Washington County.
- Illinois W. P. Flint (September 23): The catalpa sphinx has been very abundant in southern and south-central Illinois, completely defoliating many small catalpa plantations as well as catalpa shade trees in lawns and parks.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schrank)

- Vermont H. L. Bailey (September 28): The elm leaf beetle was moderately abundant in Brattleboro and Bennington. Evidence of its work was noted at Winooski, which constitutes the northernmost record for Vermont.

Connecticut

W. E. Britton (September 24): Although the activities of this insect are now about over for the season, it is a good time to report on general prevalence. Much injury resulted to unsprayed elm trees throughout Connecticut, except possibly at the higher elevations. Less injury for instance in Litchfield County than elsewhere, though injury was present there at the lower levels. All along the shore and throughout the central valley area of the State there was much injury. Many trees were defoliated and have since put out a new crop of small leaves.

Ohio

E. W. Mendenhall (September 8): A severe outbreak was found on elm trees on three properties at Lagondia Avenue and Main Street in Springfield. This is the first outbreak reported from Springfield, although infestation occurred nearby.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Wisconsin

P. A. Thatcher (June 13): Many elms in Trempealeau County are infested with black aphids that cause a curling of the leaves.

Nebraska

M. H. Swenk (August 1-31): Over the south-central part of the State, from Boone, Greeley, Platte, Adams, and Nuckolls Counties west along the streams and in the cities, the elm trees were heavily infested with aphids during August. These insects produced such copious quantities of honeydew that it dripped upon the sidewalks, fences, and other objects under the trees, much to the disgust of many complainants.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Ohio

E. W. Mendenhall (August 29): The limbs of the elm trees on the Ohio State University campus are dying on account of European elm scale. Nearly all the elm trees in and about Columbus are badly infested.

Indiana

J. J. Davis (September 25): European elm scale was reported abundant at Indianapolis September 11.

FIR

SITKA SPRUCE GALL APHID (Gillettea cooleyi Gill.)

Massachusetts

E. P. Felt (September 25): The Sitka spruce gall aphid, Gillettea cooleyi, was reported as somewhat abundant on Douglas fir in the Boston area.

HEMLOCK

HEMLOCK SPANWORM (Ellopia fiscellaria Guen.)

Maine

H. B. Pairson (September 10): Moths are very abundant on hemlock near Lincoln.

HICKORY

HICKORY PHYLLOXERA (Phylloxera caryaecaulis Fitch)

New York

E. P. Felt (September 25): The hickory leaf stem aphid, P. caryaecaulis, was reported in small numbers from a Long Island locality.

LINDEN

HICKORY TUSsock MoTH (Halisidota caryae Harr.)

Pennsylvania

J. N. Knull (August 28): Caterpillars are very plentiful on various forest trees, especially linden, throughout Potter County this year.

LOCUST

LOCUST BORER (Cyrtene robiniae Forst.)

Indiana

J. J. Davis (September 25): The locust borer was destructive at Marion and Lafayette early in September.

MAPLE

MAPLE BORER (Synanthedon acerni Clem.)

Indiana

J. J. Davis (September 25): The maple sesiid (Synanthedon acerni) was reported from Indianapolis August 31, attacking maple.

WOOLLY MAPLE LEAF SCALE (Phenacoccus acericola King)

Connecticut

W. E. Britton (September 23): This scale seems to be more abundant on sugar maple around New Haven than for several years.

New York

E. P. Felt (September 25): The maple Phenacoccus was reported as being injurious to sugar maples in the Poughkeepsie area.

OAK

ROUND-HEADED BORERS (Agrilus spp.)

Pennsylvania

J. N. Knull (September 1): Oaks throughout Pennsylvania are showing brown leaves on small branchlets. The injury is largely due to the girdling habit of the small larvae of A. arcuatus Say. This insect seems to be abundant this year. Many trees

have also been attacked by the two-lined chestnut borer, A. bilineatus Web.. The vitality of the infested trees had been lowered by defoliators, during late spring and by the drought of 1930-31.

FRUIT TREE LEAF ROLLER (Cacoecia argyrospila Walk.)

Wisconsin

F. A. Thatcher (June 13): Leaf curlers are very abundant on oak trees in Trempealeau County, preventing the development of the leaves.

OAK TWIG PRUNER (Hypermallus villosus Fab.)

Maine

H. B. Peirson (September 25): The oak twig pruner infestation is very heavy in Franklin.

Virginia

C. R. Willey (September 28): A severe infestation was observed in a group of large oak trees on a lawn near Hicks Wharf in Mathews Co., September 2.

A LEAF MINER (Cameraria conglomeratella Zell.)

Mississippi

G. L. Bond (August 29): Injury to oak leaves from the Eastman Memorial Foundation of Laurel was very severe, and trees in various parts of the city have also been heavily infested. (Det. A. Busck, Sept. 11.)

A LACE BUG (Corythucha floridana Heid.)

Florida

E. W. Berger and G. B. Merrill (September 21): Specimens from oak were received from Fort Pierce.

OBSCURE SCALE (Chrysomphalus obscurus Comst.)

Ohio

E. W. Mendenhall (September 8): Oak trees in Edgewood Park Addition, Springfield, are badly infested with the obscure scale.

FLANNEL MOTH (Lagoa crispata Pack.)

Connecticut

W. E. Britton (September 23): Lagoa crispata Pack. is reported more abundant than usual on apple, oak, and strawberry in Niantic, East Woodstock, and South Norwalk.

FINE

NANTUCKET PINE SHOOT MOTH (Rhyacionia frustrana Scudd.)

Pennsylvania

J. N. Knull (September 1): A heavy infestation of the Nantucket shoot moth was reported in a plantation of pitch pine (Pinus rigida Miller) at Cheyney.

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Connecticut R. B. Friend (September 23): The European pine shoot moth is common in many plantations of red pine in the State, particularly in the southwestern part. Considerable spread occurred this year.

PINE DEVIL MOTH (Citheronia sepulchralis G. & R.)

Alabama J. M. Robinson (September 22): The pine devil moth is moderately abundant. Larvae are feeding on pine needles in Thomasville.

RED-HEADED PINE SAWFLY (Neodiprion lecontei Fitch)

Pennsylvania E. P. Felt (September 25): Leconte's sawfly is somewhat prevalent in the Philadelphia area, half-grown second-brood larvae being abundant upon shoots of Scotch pine the third week in September.

ABBOT'S SAWFLY (Tenthredinidae)

Mississippi C. Lyle (September 22): Sawfly larvae (not yet determined) were reported on September 15 by Inspector R. P. Colmer as stripping needles from pine trees at Pascagoula.

WHITE-PINE WEEVIL (Pissodes strobi Peck)

New England E. P. Felt (September 26): The white-pine weevil has been somewhat generally injurious over much of southern New England and southeastern New York.

PINE LEAF SCALE (Chionaspis pinifoliae Fitch)

Indiana J. J. Davis (September 25): The pine leaf scale was abundant in spruce at Batesville September 12.

Mississippi H. Dietrich (September 20): A scale (Chionaspis pinifoliae-heterophyllae, det. L. E. Myers) is quite common on young slash pine (Pinus caribaea) in swamps of northern Jackson County.

POPLAR AND WILLOW

A GALL MITE (Eriophyes populi Nal.)

Wyoming C. L. Corkins (September 18): A gall which has become exceedingly serious upon certain varieties of poplars at Casper has been identified as Eriophyes populi. Trees 40 to 50 feet in height are covered with galls from top to bottom, and on the sides of large limbs. The galls are of unusual size and abundance. Dr. Felt calls it "an extreme infestation." It certainly is very unusual.

POPLAR TENT MAKER (Ichthyura inclusa Hbn.)

Ohio

E. W. Mendenhall (August 29): Many willows in central Ohio are infested with larvae of the poplar tent maker.

Indiana

J. J. Davis (September 25): The poplar tent maker was abundant and partially defoliated poplar at Lafayette, September 4.

PUSS CATERPILLAR (Megalopyge opercularis S. & A.)

Virginia

C. R. Willey (September 28): Specimens of puss caterpillar were sent in from Waverley by County Agent C. W. Hubbard. They were taken from pussy willow September 17.

WILLOW BORER (Cryptorhynchus labathi L.)

Washington

W. W. Baker (September): Ferdinanea aenicoloe and one small dipteran were found living in the frass at the exit holes earlier in the season. Till recently we had not found this species infesting anything but two or three native willows, but one poplar was found infested on the 14th, and the willows over a much more extensive area than we previously realized have been found to be infested to a slight extent.

SPRUCE

A WEEVIL (Pissodes sp.)

Washington

W. W. Baker (September 22): Mr. Thaanum, horticultural inspector for Skagit County, reports considerable damage in one planting of Colorado blue spruce at Burlington. One native spruce at Sedro-Wooley was also reported infested. Mr. Thaanum's description and his recognition of a Pissodes in our collection, indicates that the insect in question belongs to this genus.

SPRUCE GALL APHID (Chermes abietis L.)

Maine

H. B. Peirson (September 25): There is a heavy infestation of the spruce gall louse on spruce in a plantation at Brighton.

New York

C. R. Crosby (August 28): Specimens of the aphids were received from Westfield, where they were attacking spruce.

AN APHID (Pineus pinifoliae Fitch)

Maine

H. B. Peirson (September 25): The spruce gall (P. pinifoliae) is prevalent on spruce along the coast as far east as Waite and Daring.

SPRUCE BUDWORM (Harmologa fumiferana Clem.)

Oregon

J. A. Beal (July 13): A budworm was found feeding heavily on white fir, Douglas fir, and larch in the Wildwood camp ground in the Ochoco National Forest. Supervisor Kuhns, of the Whitman National Forest, reports large areas of dead and dying white fir in the vicinity of Halfway. He says the budworms were killing the fir in this area on September 5. (Specimen identified by C. Heinrich.)

SYCAMORE

SYCAMORE LACEBUG (Corythucha ciliata Say)

Connecticut

N. Turner (September 15): Sycamores along the west shore and Suffield were heavily attacked; also in the Housatonic Valley to the Massachusetts State line.

WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Virginia

C. R. Willey (September 28): The walnut datana is very abundant in Richmond section, occurring on black walnut, English walnut, pecans and hickory. It created considerable interest due to its habit of clustering on trunks for molting.

Georgia

J. B. Gill (September 26): There has been a very light infestation of the walnut caterpillar in pecan orchards of this section (Albany).

Tennessee

J. U. Gilmore and J. Milam (September 24): Numerous instances of complete defoliation on black walnut were noted at Clarksville.

Nebraska

M. H. Swenk (August 1-31): The walnut caterpillar stripped many walnut trees of their leaves in southeastern Nebraska during August, and was the cause of many inquiries and complaints.

Kansas

H. R. Bryson (September 23): Dr. E. G. Kelly reports that practically every walnut tree between Manhattan and Lawrence has been defoliated. Observations in the vicinity of Manhattan indicate this condition to be true here also. Dr. Kelly also reports *Datanas* attacking apple and oak rather generally over the State. Oak, apple, and sumac have been defoliated at Manhattan.

INSECTS AFFECTING GREENHOUSE AND
ORNAMENTAL PLANTS AND LAWNS

BUMBLE FLOWER BEETLE (Euphoria inda L.)

New York W. E. Blauvelt (September 7): A specimen of this insect was collected from gladiolus at Penn Yan.

Nebraska M. H. Swenk (August): Farmers in Holt and Greeley Counties reported many beetles devouring the milky kernels at the tips of the corn ears.

ASH-GRAY BLISTER BEETLE (Macrobasis unicolor Key.)

Alabama J. M. Robinson (September 22): This beetle is very abundant on clematis, destroying vine foliage in Birmingham.

THREE-LINED POTATO BEETLE (Lema trilineata Oliv.)

New York C. R. Crosby (September 1): Specimens were received from Rochester, where they were attacking Japanese lantern plants.

A GALL MITE (Eriophyes eucricotes Nal.)

Massachusetts E. P. Felt (September 25): This insect was received from Boston where there is apparently a somewhat general infestation.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Georgia J. B. Gill (September 26): The cottony-cushion scale has been reported from scattered localities in southern Georgia, the infestations being restricted to ornamentals.

WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Maryland E. N. Cory (September 25): The West Indian cherry scale was observed at Takoma Park on ornamental cherry.

LACEBUGS (Tingididae)

Mississippi C. Lyle (September 22): Severe injury to verbena plants by lacebugs at Kosciusko was reported on August 27. Chrysanthemum plants injured by these insects were received from Batesville on September 17.

GIANT HORNET (Vespa crabro L.)

New York P. M. Eastman (September 10): Specimens of this insect were received today from Walden. The sender stated that they are attacking lilac bushes in a vigorous way. They girdle the branches, eating the bark. When the shadow strikes the bushes,

they immediately discontinue operations and go to the bushes on which the sun is shining. Their destruction undoubtedly will be very serious.

B. A. Porter (September 24): A report has been received from Larchmont of injury by the giant European hornet to the young bark of apple trees. The same insect has been reported from Narrowsburg as feeding on pear fruit.

ALDER

ALDER FLEA BEETLE (Haltica bimarginata Say)

Maine

H. B. Peirson (August 24): This insect is very abundant on alder in Eastern Maine.

ASTER

SALT-MARSH CATERFILLAR (Estigmene acraea Drury)

Indiana

J. J. Davis (September 25): The woolly bear caterpillar was reported as defoliating asters at Corydon September 8.

CREPE MYRTLE

CREPE MYRTLE APHID (Myzocallis kahawaluakalani Kirk.)

Mississippi

C. Lyle and assistants (September 15): This aphid is very abundant, accompanied by mildew, on crepe myrtle at Natchez.

DAHLIA

SUNFLOWER WEEVIL (Rhodobaenus 13-punctatus Ill.)

Mississippi

J. Milton (September 21): Cocklebur billbugs were found to be injuring dahlias seriously at Corinth September 12. They were boring down through the center of the stalks, causing the plants to wilt badly.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Virginia

H. G. Walker (September 25): The euonymus scale has been very abundant and has caused severe injury to many euonymus shrubs in and around Norfolk.

Mississippi

R. B. Deen (September 3): The euonymus scale has practically killed several Euonymus japonica shrubs at Tupelo, Lee County.

GLADIOLI

A THRIPS (Thysanoptera)

Connecticut

N. Turner (September 23): One grower with about 20,000 bulbs lost most of his blooms; another lost about 10 per cent. Otherwise the thrips, although universally present, are not serious. Four species have been found; apparently none of them are Taeniothrips gladioli M. & S.

GLADIOLUS THRIPS (Taeniothrips gladioli M. & S.)

Ohio

E. W. Mendenhall (September 14): This insect was destructively abundant in Ohio for the first time in 1930, when it did considerable damage in the Cleveland area. This year the damage has extended farther south and is abundant at Ravenna and other points.

New York

C. R. Crosby (September): Specimens of this thrips were received from New Hartford August 25; Morton September 3, and Cherry Creek September 8.

W. E. Blauvelt (September): Specimens of gladiolus thrips were received from Victor August 16, Rochester August 28, and Syracuse September 5.

NEW JERSEY TEA

A SCALE INSECT (Targionia helianthi Parrott)

Mississippi

H. Dietrich (September 20): A scale (R. helianthi, det. L. E. Myers) was so abundant on New Jersey Tea (Ceanothus americana) in the woods near Leakesville on August 24 that many of the plants had been killed.

SWEET PEA

GREENHOUSE CENTIPEDE (Scutigera immaculata Newp.)

Ohio

E. W. Mendenhall (September 9): Sweet pea vines in one of the greenhouses in Xenia are suffering greatly on account of garden centipedes.

Indiana

J. J. Davis (September 25): What was probably the greenhouse centipede was reported damaging sweet pea at Kokomo August 24.

INSECTS ATTACKING MAN AND
DOMESTIC ANIMALS

MAN

MOSQUITOES (Culicinae)

New York

P. M. Eastman (September 18): Owing to excessive moisture conditions, mosquitoes have been very abundant for the past two months and were extremely annoying to citizens living in the suburban sections of Albany.

Alabama

J. M. Robinson (August 20): Mosquitoes are abundant at Auburn.

Mississippi

C. Lyle and assistants (September): The salt-marsh mosquito, Aedes sollicitans Walk., was especially abundant along the coast during part of the month. More complaints of various species (Aedes aegypti L., Psorophora posticata Wied., Psorophora champerico D. & K., Aedes atlanticus D. & K., Aedes trivittatus Coq., Aedes sollicitans Walk., and Megarhinus septentrionalis D. & K.) were received generally from over the State than at any time during the summer.

K. L. Cockerham (August 25): On the night of August 25 the Mississippi coast was subjected to an influx of salt-marsh mosquitoes. Since that date it has been almost impossible to remain out in the fields or in grassy places. They are very numerous at Picayune, a distance of thirty miles from the coast. The species concerned in this "flight" are Aedes sollicitans Walk. and A. taeniorhynchus Wied., with the majority of them belonging to the former.

EYE GNATS (Hippelates sp.)

South Carolina

J. N. Tenhet (September 23): Eye gnats are worse than for many years. Sore eyes or conjunctivitis is almost epidemic among children in this community. It is very unusual for eye gnats to be so abundant and troublesome this late in the fall. Possibly the severe drought and continued heat are responsible.

Florida

W. E. Dove (September 17-20): Eye gnats (H. pusio Mall.) were numerous at Marianna, Live Oak, Lake City, Pensacola, Panama City, and at points between these localities. They were present about the eyes of persons and the eyes of cattle. At different places conjunctivitis was reported by laymen. This species was commonly observed about the eyes of persons on the coast. According to fishermen, "sore eyes" occur during the fall months in the vicinity of Mobile, Ala.

Mississippi

H. Dietrich (September 20): Eye gnats (Hippelates sp.) are extremely abundant in George, Greene, and Perry Counties, being especially annoying in unscreened buildings and out of the wind.

R. P. Colmer (September 19): Eye gnats have been very abundant in the northern part of Jackson County.

Texas

S. W. Clark (September 10): Eye gnats have been very abundant and annoying during the past few weeks at Weslaco.

SAND FLIES (Culicoides spp.)

North Carolina

D. G. Hall (September 15-18): C. furens Poey., the tropical sand fly, was found from Wilmington, W. C., to Charleston, S. C. In this area the yellow sand flies, principally C. melleus Coq., were most numerous. Other species were collected from this area.

South Carolina

J. B. Hall, D. G. Hall, and W. E. Dove (August 20 to September 30): Sand flies known to us as C. melleus continued to emerge in cages located over natural breeding areas throughout the month. As this species increased in number, C. furens showed a slight decrease. The latter is a tropical species. On August 30, C. canithorax Hoff. began to emerge in such cages. The latter becomes most prevalent during the autumn and spring months. Sand flies were present in residences at Charleston on September 10.

Florida

W. E. Dove (September 18-20): North of Jacksonville C. furens were very abundant, especially about 5 a.m. During the evening C. melleus were numerous south of Jacksonville. Other species also were encountered.

Alabama
Mississippi
Florida

W. E. Dove (September 16-20): Specimens of C. melleus and other yellow sand flies were collected at Mobile, Ala., Gulfport, Miss., and Panama City, Fla. At these localities C. furens was present but in smaller numbers. Fishermen report annoyance throughout the year.

DEER FLIES (Chrysops spp.)

Florida

W. E. Dove (September 20): West of Jacksonville "deer flies" Chrysops univittatus Meig. were very abundant.

Alabama

W. E. Dove (September 16): "Deer flies" are annoying in the marshy areas in this vicinity.

HUMAN FLEA (Pulex irritans L.)

Kansas

H. B. Hungerford (September 28): A very heavy infestation of the human flea in a barn yard near Overbrook has been giving trouble for the past year. This summer the farmer reported that he could not keep his team under control in trying to cultivate corn near the swine yard. The fleas were astonishingly abundant.

FLEAS (Ctenocephalus spp.)

New York

W. E. Blauvelt (September 3): Specimens of C. canis Curtis were received from Fultonville, where they were infesting a house.

W. Moore (September 28): *Through one of the fumigating companies working in New York City since 1908 I have obtained the information that this year is probably the greatest year for flea abundance of any since they have been in business. They also mentioned the abundance of fleas in 1916.

South Carolina

W. E. Dove (September 1-20): Cat fleas (C. felis Bouche) and dog fleas (C. canis Curtis) have been annoying at Charleston. In one instance, visits of neighborly cats during one week resulted in an infestation of a residence.

Illinois

W. P. Flint (September 23): The usual number of reports have been received concerning flea infestations, most of these coming from central Illinois.

Kentucky

W. A. Price (September 25): Forty-two inquiries were received in the office of the State Entomologist during the past 30 days in regard to the control of fleas. Practically all were dog flea infestations in houses.

Kansas

H. B. Hungerford (September 28): There are several serious infestations of dog fleas in Lawrence this month. In one neighborhood the lawns are abundantly infested, much to the unhappiness of those who dwell thereabout.

CATTLE

STABLE FLY (Stomoxys calcitrans L.)

Maryland

Berlin-Ocean City News (September 17): Clouds of insects, mostly flies and mosquitoes, swept over a 20-mile area along the Worcester County coastal peninsula, south of Ocean City, Friday and Saturday, invading herds of wild cattle and wild ponies, leaving twenty-one dead animals strewn along the beach between Ocean City and Green Run Coast Guard Station.

The insects drove the wild animals from the beach into the ocean surf, where they drowned. Others, bitten by the pests, were unable to reach the surf and, weakened by loss of blood,

fell down on the beach, where they were quickly exterminated.

Bathers at Ocean City on Friday were constantly annoyed by insects, even while bathing in the surf, it was reported.

S. L. Crosthwait (September 24): S. calcitrans is reported attacking horses, hogs, cattle, and mules in Wicomico County.

North Carolina and South Carolina D. G. Hall (September 15-18): At points on the Atlantic coast between Wilmington, N. C., and Charleston, S. C., this species was found to be the most serious pest of livestock in this area during September. Dairies reported large reductions in milk production. Some cattle were driven to sheds for protection. Breeding places about barns appear to be too small to account for the large number of these flies.

South Carolina Commandant at Fort Moultrie (September 10): The animals at this army post are suffering greatly from an invasion of S. calcitrans. With the help of the department we were able to rid ourselves of the first influx. Since then the wind changed, we got another crop, and are now fighting again.

Florida W. E. Dove (September 16-20): The dog fly (S. calcitrans) was observed on cattle at Pensacola and Panama City. It is considered a serious pest of cattle and dogs and is often annoying to man.

Missouri L. Haseman (September 28): The county agent at Perryville reports general serious outbreaks of stable flies.

Alabama W. E. Dove (September 16-20): The dog fly was observed on cattle at Mobile.

Mississippi W. E. Dove (September 16-20): The dog fly was observed on cattle at Gulfport.

SCREW WORM (Cochliomyia macellaria Fab.)

South Carolina J. B. Hull (September 1): About September 1 there was a marked decrease in the number of screw-worm flies. This may be due in part to dry weather conditions in the vicinity of Charleston.

HORN FLY (Haematobia irritans L.)

Missouri L. Haseman (September 28): The county agent at Perryville reports serious outbreaks of horn flies. They are serious generally.

HORSE

HORSE FLIES (Tabanus spp.)

- South Carolina D. G. Hall and W. E. Dove (September): There has been a decrease in the number of tabanids about cattle. The predacious "horse guards" (Bombex sp.) average from 2 to 4 to the animal.
- Florida W. E. Dove (September 20): West of Jacksonville T. turbidus Wied. was abundant in the pine and palmetto lands having some marshy areas.
- Missouri L. Haseman (September 28): The county agent at Perryville reports serious outbreaks of horse flies. They are serious generally.
- Utah G. F. Knowlton (September 16): Horse flies are very abundant at Locomotive Springs at the present time, annoying cattle and people.

HOUSEHOLD AND STORED-PRODUCT

I N S E C T S

TERMITES (Reticulitermes sp.)

- General T. E. Snyder (July-August): During the months of July and August there were 308 cases of damage by termites reported to the Bureau of Entomology. The following list gives the number of cases reported from each State:

Alabama - 13	Louisiana - 11	Pennsylvania - 6
Arkansas - 5	Massachusetts - 7	South Carolina - 10
California - 17	Maryland - 6	Tennessee - 18
Connecticut - 3	Michigan - 5	Texas - 30
District of	Mississippi - 3	Utah - 1
Columbia - 14	Missouri - 12	Virginia - 26
Florida - 39	Nebraska - 1	Washington - 1
Georgia - 12	New Jersey - 2	Wisconsin - 1
Illinois - 3	New York - 6	Phillippine Islands - 1
Iowa - 5	North Carolina - 21	
Kansas - 2	Ohio - 6	
Kentucky - 3	Oklahoma - 9	

- North Carolina W. A. Thomas (September 5): Some of the strawberry growers at Chadbourn are having trouble with termites on new land, where they turn the plants, causing them to die. No damage to plants growing on old land free of decaying wood has been reported.

- Indiana J. J. Davis (September 25): Termite damage was reported from Richmond, Milan, Sullivan, Martinsville, Elkhart, and Crawfordsville, August 22 to September 21. At Logansport they damaged chrysanthemums on August 21.
- Nebraska M. H. Swenk (August 1-31): From Douglas County came two reports of serious injury to houses by our common termite, R. tibialis Banks.
- Alabama J. M. Robinson (August 20): Termites are abundant at Birmingham and Florence. (September 22): Termites are moderately abundant at Birmingham.
- Mississippi State Plant Board (August 31): Termites were generally abundant and many people received advice about protecting their houses from these pests.
- M. L. Douglass (September 19): Termites were noticed generally in Yalobusha, Grenada, and Montgomery Counties.
- ANTS (Formicidae)
- South Carolina M. R. Smith (September 19): Mr. J. A. Berly recently sent me for determination a form of fire ant, Solenopsis geminata Fab., subsp. rufa Jerdon, which was collected at Summerville on September 7.
- Florida M. R. Smith (September 18): Mr. H. H. Wedgeworth, Associate Plant Pathologist at the Everglade Experiment Station, Belle Glade, has sent me two species of ants which he states are infesting houses there. One of these has been determined as Pharaoh's ant, Monomorium pharaonis L., and the other as M. floricola Jerdon.
- Nebraska M. H. Swenk (August 1-31): During August, as also earlier in the season, ants were the cause of much annoyance to housekeepers. An unusually large number of these complaints, for this region, related to the small red ant (M. pharaonis).
- Alabama M. R. Smith (September 19): Argentine ants (Iridomyrmex humilis Mayr) were recently discovered at Northport.
- Mississippi M. R. Smith (September 19): A correspondent living in the country near Quitman complains of an unusual abundance of lion ants, Dorymyrmex pyramicus Roger, on the front porch of her house and in the yard. Mr. O. M. Chance reports Argentine ants from Yokena. The infested area is a rural one lying 2 miles southwest of the Glass station on the Y. & M. V. railroad. Mr. R. P. Colmer recently found acrobatic ants infesting a kitchen at Moss Point, where preserves were being prepared. I have tentatively determined the ants as Cremastogaster ashmeadi Mayr.

State Plant Board (September 19): It is believed that the Argentine ant is now completely eradicated from Columbus over the largest area in the world in which this pest has been exterminated. A thorough scouting of the previously infested areas, block by block, this summer failed to reveal but two colonies of the ants, which were promptly destroyed by oil and fire.

About 76 city blocks were badly infested with the ants at one time. About 40 other places in Mississippi have eradicated the Argentine ant in cooperation with the State Plant Board, but the area cleared in Columbus is the largest.

C. Lyle and assistants (September): The Argentine ant situation in this vicinity is very encouraging at the present time, no Argentine ants having been found thus far at four of the previous infestations, namely, Grenada, Duckhill, Beatty, and Kilmichael. They have also been reduced to a very small area in the city of Water Valley, and only a few have been noticed in the cities of Winona and Tillatoba. The Argentine ant is very annoying to residents in places where no control campaign was conducted last year. In Brookhaven, where a campaign was conducted in March, 1929, these ants are numerous in only a few residences at this time. The size of the Argentine ant infestation is greatly increased at Rodney, owing to overflows of the river in 1927 and 1929. Fire ants (Solenopsis geminata Fab.) completely destroyed plantings of fall turnip greens in many gardens in George and Perry Counties. Ants completely destroyed a 5 acre field of beets sown late in August at Lucedale. Florida harvesting ants (Pogonomyrmex badius Latr.; det. M. R. Smith) dug up the seeds, taking them to their nests; and Lion ants (D. pyramicus Roger, det. M. R. Smith) chewed off most of the plants that came up, leaving a bare field.

Texas

S. W. Clark (August 27): There was more damage than usual this summer at Weslaco by Solenopsis geminata Fab. attacking citrus. The indications are that the infestations will be particularly severe during the fall months.

CHEESE MITE (Tyroglyphus siro L.)

Washington

W. W. Baker (September 12-19): Two brands of small packages of cheese were found infested in two different stores at Puyallup; all three packages had been wrapped in tin foil.

SILVERFISH (Lepisma saccharina L.)

Connecticut

N. Turner (September 1): Silverfish (species not identified) badly damaged paper newly applied on four rooms at Guilford.

Mississippi

C. Lyle and assistants (September): During the last week of August injury by the silverfish or slicker was observed in wall paper in Corinth. The room had recently been papered and the insects had eaten numerous holes in the paper, which marred the appearance of the room greatly. Silverfish are very abundant in residences at Natchez, feeding on wall paper and paste.

AN ANOBIID BEETLE (Xyletinus peltatus Harr.)

Mississippi

C. Lyle (September 22): Correspondents in various sections of the State have written us recently regarding injury to floors in their homes that we believe, from the descriptions given, was caused by Xyletinus peltatus.

PLANT QUARANTINE AND CONTROL ADMINISTRATION

Notes abstracted from "News Letter" for August, 1931.
(No.9, Issued September 1, 1931.)

Not for publication

GIPSY MOTH (Porthetria dispar L.)

There was less defoliation caused by the gipsy moth this summer than for several years, and the trees in most of the area were practically free from gipsy moth feeding. Defoliation was severe in the counties of Bristol, Plymouth, and Barnstable, Mass. There was recorded a total of 204,720 acres in New England which showed some feeding by the gipsy moth caterpillars, but over one-half of this was classified as less than 10 per cent defoliated, leaving 101,583 acres classified as from 10 to 100 per cent defoliated, and over one-half of this amount (54,710 acres) was in the southeastern section of Massachusetts. Practically all of the defoliation records are now available; there may be a few scattered ones received later, so that these figures may have to be changed somewhat, but it is not expected that any material change in them will be necessary.

In the part of the Barrier Zone in New York State which is cared for by the New York Conservation Department, scouting was carried on during July in the townships of Ancram, Austerlitz, Canaan, and Hillsdale, and apparently no infestations were discovered during the month. On Long Island the New York Conservation Department had 5 crews doing intensive scouting in North Hempstead Township. No indications of gipsy moth infestation were found as a result of this work.

JAPANESE BEETLE (Popillia japonica Newm.)

Flight of the adult Japanese beetle in the market and waterfront districts of Philadelphia reached such proportions that, beginning July 10, it was necessary to curtail the period during which farm products could be inspected and certified for movement from the generally infested area. Flight of the Japanese beetles in the heavily infested areas of New Jersey and Pennsylvania was studied during June by plant pest control officials from several other States. In a number of the localities visited, damage to crops was found to be greater than in preceding seasons. The beetle flight was still in progress at the end of August.

SMALLER BAMBOO SHOT-HOLE BORER (Dinoderus minutus Fab.)

A shipment of approximately 28 tons of Gynerium sagittatum, G. spodiocaroides, and Arundo donax, imported at Philadelphia on July 28 for the purpose of testing machinery, was found to be very heavily infested, especially the Gynerium, with this bamboo borer.

SATIN MOTH (Stilpnotia salicis L.)

The satin moth has been found outside of the quarantine line in 8 towns in Connecticut; 2 towns in Massachusetts, one of which (Williamstown) borders the Vermont and New York State lines; 1 town in Vermont, and 9 towns in Maine. No infestation beyond the quarantine line in New Hampshire was found as a result of this work. This work is not entirely completed so that recommendations for changing the present quarantine line can not be made at this time.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Increase in infestation of the corn borer over most of the territory is indicated by a summary of the field reports on the egg survey in the western area, which was completed on July 22. This undertaking, commenced on June 25, was conducted by the Administration in cooperation with the Bureau of Entomology. Sections of New York, Ohio, and Michigan were covered by the 22 men employed, 20 of whom made the counts with 2 acting as supervisors.

LESSER BULB FLY (Eumerus strigatus Fallen)

An "active general field infestation" of the lesser bulb flies in Tennessee, where the capture of one specimen earlier in the season was reported in the July issue, is disclosed through field observations by G. W. R. Davidson. Several adult flies were observed in most of the plantings, and in the Victoria variety they were quite numerous. In one Georgia planting a number of larvae of the lesser bulb fly, some apparently full grown and others about half grown, were found in one variety of bulbs immediately after digging.

PINK BOLLWORM (Pectinophora gossypiella Saund.)

During the month of July, field inspection in the Salt River Valley of Arizona consisted of making infestation counts from 23 selected fields, 20 of which are in Maricopa County and 3 in Pinal County. The results have all been negative. This is somewhat surprising when it is recalled that 2 of the fields selected in Pinal County and 9 in Maricopa County were infested last season. Also 2 of the fields in Maricopa County were found to be infested this season prior to the beginning of the infestation counts. This would seem to indicate that the infestation is still very light. One of the most logical conclusions for not finding specimens, especially in the 2 fields where they were found earlier in the season, is that the bolls are now developing much more rapidly than the infestation.

An infestation count consists of the inspection of 100 bolls. Estimates were made recently to determine the number of bolls per acre, which was found to be 919,080. In examining 100 bolls from this number, it can be readily seen that the chances of finding specimens are very slight, except where the infestation is heavy.

Field inspections have also been made in the Tucson area. By using 10 squares or green bolls per acre, 1,225 acres have already been inspected

with negative results. Practically all of the cotton acreage in the district will be covered by this method of inspection in another month.

One of the new gin trash machines mounted on a truck was sent to the Lower Rio Grande Valley of Texas on July 24. Other machines were sent out as they were completed, so that by the end of July there were five machines operating in the above area. These machines inspected 265½ bushels of trash from 25 gins with negative results.

MEXICAN FRUIT FLY (Anastrepha ludens Loew)

As a supplement to the inspection work this summer, 1,077 fly traps similar to those ^{used} in Florida were placed in 118 selected groves during the first part of July. The use of these traps resulted in the taking of one adult Anastrepha (not ludens), July 14, in a grove one mile south of Mission, Tex. Additional traps placed in this and the surrounding groves gave negative results the remainder of the month.

Adult flies continue to be taken in the traps in Matamoros. During the month 176 traps were maintained in 57 different premises scattered throughout the city. The use of these traps resulted in the taking of 30 adult flies on 13 different premises. Of interest in this connection is the fact that in only 4 of these premises were reinfestations found. All trees within an area of four blocks around each point of infestation were sprayed at weekly intervals with poison-bait spray.

OUTSTANDING ENTOMOLOGICAL FEATURES IN MEXICO, SUMMER OF 1931.

Alfonso Dampf, Head of Department of Research

Officina Federal para la Defensa Agricola, San Jacinto, D. F. (Mexico)

The extraordinarily heavy rains which fell in June and July in Mexico had very interesting effects on insect pests. There was an unprecedented outbreak of cutworms, not only in the central highland but also in the tropical parts. Reports were received from the States of San Luis Potosi, Michoacan, Hidalgo, Mexico, Puebla, Guanajuato, Morelos, Veracruz, Guerrero, Oaxaca and Chiapas. The species most destructive to alfalfa proved to be Copitarsia consueta Wlk., a noctuid known as a potato pest, a borer of cabbage heads, and an enemy of tobacco plants. (Dampf det.)

Another surprise was the appearance of the chinch bug, Blissus leucopterus Say, in the Ixtlahuaca Valley, State of Mexico, 400 meters above sea level, as a serious pest of corn, the first case since the establishment of an organized plant protection service in Mexico. Corn planted in June was without exception badly attacked; fields planted in April looked healthy. The pest came from the winter-wheat fields and is apparently at home in the tussocks of alpine grass in the nearby hills and mountains. H. G. Barber, U. S. Bureau of Entomology, identified

the specimens as unmistakably chinch bugs, but much darker than the United States variety.

A false chinch bug (apparently Nysius sp.), influenced by the same meteorological conditions as Blissus leucopterus Say, appeared in alarming number in the cornfields in the State of Hidalgo.

In the State National Park Desierto de Los Leones, Federal District near Mexico City, Lachnus sp. was extremely abundant during May, attacking young trees of Abies religiosa. The stems were in some cases covered with a crust of aphids for a span of two meters.

Halisidota caryae Harr. defoliated many rose bushes in and around Mexico City during August. In some cases corn was attacked and small plantations in gardens were entirely destroyed.

During a visit to the West Coast of Mexico, in the month of June, the joint commission composed of Mr. Trotman and Mr. Townsend from the Plant Quarantine and Control Administration, U. S. Department of Agriculture, Washington, and Mr. I. Hernandez Olmedo from the Oficina Federal para la Defensa Agricola, Mexico Secretaria de Agricultura, located the following infestations of fruits by larvae of the genus Anastrepha:

In guayaba (Psidium) in Mazatlan, State of Sinaloa,
probably Anastrepha striata Schin.

In Mexican plums (Spondias), in Mazatlan, Sinaloa,
probably A. fratercula Wied.

In sour oranges, Tepic, Nayarit, probably A. ludens Loew.

In Caimito (Chrysophyllum cainito), El Dorado, Sinaloa;
one adult obtained proved to be A. serpentina Wied.

This extends the known infested zone considerably to the northwest.

On their return trip, the U. S. commission was accompanied by Mr. E. Coppel Rivas and additional investigations were made, with the result that fruit fly larvae probably A. striata were also found in Culiacan, Sinaloa, in guayabas.

INSECT CONDITIONS IN PORTO RICO DURING AUGUST, 1931

M. D. Leonard

Insular Experiment Station, Rio Piedras, Porto Rico

The yellow cane aphid, Siphia flava Forbes, was observed doing considerable damage in a number of large sugarcane plantings of young to fairly large cane near both Aguirre and Santa Isabel on August 22. Mr. Foss, Assistant Field Manager of the Aguirre Sugar Co., stated on that date that during all of July and August there had been a rather general, though fairly light, infestation throughout nearly all of the company's extensive plantings, in spite of the fact that the rainfall had been greatly in excess of normal.

A leafhopper, Protalebra brasiliensis De Long, known to be a minor pest of sugarcane, continued to be common in all stages throughout the month on many patches of Bidens pilosa at El Morro in San Juan.

Adults of the scarabeid beetle Dyscinotus barbatus Fab., an occasional minor enemy of sugarcane, were observed in small numbers at lights at Hato Rey on August 31. (M.D.L.) At Isabela adults were not observed at lights throughout the month and had not been seen at lights since June 8. (G.N. Wolcott.)

Scattering male adults of Phyllophaga vandinei Smyth were collected on sugarcane on August 11 and 12 at Isabela but even by the end of the month they were not common there. (G.N.W.)

The attacks of the cotton leaf worm, Alabama argillacea Hbn., naturally abated throughout the North Coast during the month, due largely to the fact that most of the cotton plants were old and no longer succulent. According to F. E. Rorke of the San Juan Ginney Co. at least 80 to 85 per cent of the crop had been picked by the end of the month. Around Manati, however, the insect was active until at least the middle of August and apparently in several other localities there was a certain amount of feeding.

The pink boll worm, Pectinophora gossypiella Saund., was generally infesting the whole North Coast cotton growing section during the month, according to F. E. Rorke, the infestation being worst, however, in the vicinity of Arecibo, Hatillo, in parts of Caruy, and in Aguadilla. The infestation in a number of fields in these places ran as high as 100 per cent. At Moleza, near Agurdilla, a fair sized patch was examined on August 4th which showed 100 per cent of the bolls infested after only one picking; a single boll picked at random showed 7 exit holes. At Isabela the infestation was somewhat lighter. It is estimated that there has been about 50 per cent loss of the crop this season in the entire North Coast region, due to excessive rainfall, the pink boll worm and the cotton leaf worm. It is difficult to say how much of this is directly chargeable to

the pink boll worm, but probably at least half the loss should be attributed to it. As a whole the loss has not been so great on the North Coast as on the South Coast, but in certain northern localities it was as bad as in the worst infestations on the South Coast.

A cotton stainer, Dysdercus andreae L., was not abundant during the month and apparently did no appreciable damage. (F.E.R.)

The melon worm, Diaphania hyalinata L., was generally present and troublesome to cucumbers at the station at Rio Piedras during the month necessitating spraying almost every other day to keep the pest in check.

The melon aphid, Aphis gossypii Glov., was troublesome to cucumbers at the station at Rio Piedras throughout the month but was satisfactorily held in check by frequent spraying. This insect was generally present but not serious on a patch of okra at the station at Rio Piedras during the month.

A lima bean pod borer, Maruca testulalis Geyer, was observed doing considerable damage to the patch of pole limas at the Rio Piedras Station on August 18 by the larvae eating into the blossom buds, which were then abundant, and feeding on the ovaries (F. Sein). Search at the end of the month, however, showed very few blossoms present and only one dead half-grown larva. (M.D.L.) Ninety pods examined at the Isabela Substation showed no infestation. (G.N.W.)

The lima bean pod borer Etiella zinckenella Treit. was not present in 90 lima bean pods examined at the substation at Isabela. (G.N.W.)

The bean leaf roller, Goniurus proteus L., was moderately abundant on pole limas at the station at Rio Piedras, F. R.

The bean leaf webber, Nacoleia indicata Fab., was fairly abundant on pole limas during the month at the station at Rio Piedras but possibly not quite so abundant as during July.

A leaf beetle, Diabrotica graminea Baly, caused considerable damage to lima beans at the station, especially to the blossoms, but also some leaves. This beetle and Maruca and the lacebug combined prevented pod formation entirely, although other factors were undoubtedly responsible for the nonformation of pods, possibly too hot weather.

A bean leafhopper, Ernocasca fabalis De Long, was fairly abundant on lima beans at the station at Rio Piedras during the month.

A leaf bug, probably Hyalinodes sp., according to Dr. H. H. Knight, was observed generally distributed at the end of the month in moderate numbers on the underside of the leaves of the pole lima beans and the okra, which grow on adjoining patches; both are about 25 or 30 yards away from the Amorpha diversifolia trees upon which the insect feeds; no nymphs could be found on either the beans or okra.

The cotton lacebug, Corythucha gossypii Fab., was very destructive at the Rio Piedras Station on pole liras, increasing in abundance so that by the end of the month many leaves were brownish and dry, the insects being present in all stages in great numbers.

The Scarabee, Euscepes batatae Waterh., was found lightly infesting one sweetpotato tuber in the public market at Puerto de Tierra, San Juan. (R. Faxon and R.G. Oakley.)

A small blackish flea beetle was very common in all the sweetpotato patches examined and apparently doing some damage. This looks like Chaetocnema apicaria Suffrian, and I would say definitely it is that species, for it is our sweetpotato flea beetle in Porto Rico, except that Long and Mutchler do not record it from Antigua--only from Porto Rico and Cuba, and in the Supplement they add Jamaica and Haiti.

An adult of the bug Spartocera batatas Fab. was found attacking sweetpotatoes in the patio of the main building at the station at Rio Piedras on August 18 and later in the month several adults were observed on the walk outside the same building.

A leaf miner, Agromyza inorene Frost, was present throughout the month as usual in moderate numbers in several sweetpotato patches observed.

The cotton lacebug, Corythucha gossypii Fab., was found towards the end of the month in small numbers on the okra at the Rio Piedras Station. The okra adjoins the pole liras on which the insects were breeding very abundantly. Only adults could be found on the okra, but these were feeding to a noticeable extent, causing the characteristic yellowish stippled areas on the leaves.

A leaf beetle, Diabrotica graminea Baly, did considerable damage to leaves and blossoms on the okra patch at the Rio Piedras Station.

A whitefly, undoubtedly Aleurotrachelus trachoides Back, was found on August 17 to be badly infesting a house pepper plant in Santurce.

The red-banded thrips, Heliothrips rubrocinctus Giard, was observed doing considerable to moderate damage to the foliage of about 1,000 nursery mango trees at the station at Rio Piedras. Thorough spraying at once almost eliminated the insects, but by the end of the month they were again beginning to get a good foothold.

The papaya fruit fly, Toxotrypana curvicauda Gerst., was found to be infesting the fruits of a number of papaya plants on a farm near Ponce on August 5. One fruit, small and green and about 2-1/2 inches long, contained 20 larvae, and another, somewhat more mature and about 5 or 6 inches long, contained 24 larvae; in both fruits the maggots were nearly too fully grown. The owner stated that during May and June nearly all of the fruits on his trees was infested, many so badly that they had to be thrown away.

The white peach scale, Aulacaspis pentagona Targ., was moderately abundant on papaya trees on a farm near Ponce on August 5. Several "pesquin" trees (Albizzia mollis) at the Rio Piedras Station, used as shade trees in an experimental coffee planting, were moderately infested with this scale.

Adults of Diaprepes spengleri L. were present in fair numbers (but fewer than on the same trees last June) on several trees of a Ficus (probably F. laevigata) near Santa Isabel on August 20-22. Thirty-five egg masses were collected during several hours of careful search in an effort to obtain trichogrammid egg parasites for introduction into Barbados. The percentage of parasitism could not be determined at the time.

A leaf tyer, Dichomeris nigeratus Wlsm., was found to be rather badly infesting a small experimental patch of alfalfa at Maleza in the municipality of Aguadilla on August 4. This is in a rather isolated section containing many hat palms, and little farming has been done there; this occurrence of the insect in injurious numbers at some considerable distance from the only other nearest alfalfa grown at the Isabela Substation again raises the question as to what the natural leguminous food plant of the insect really is.

An undetermined scale was brought in on August 8 by Dr. T. Bregger, who stated that several "bucare enano" trees (Erythrina berteriana) were somewhat infested in the experimental coffee plots at the station. On the same date Dr. Bregger found an undetermined scale which was rather badly infesting several "pesquin" trees (Albizzia mollis) used as shade trees in an experimental coffee planting at the Rio Piedras Station.

The Hawaiian beet webworm, Hymenia fascialis Cram., was much less abundant than during July at El Morro in San Juan. The scarcity of the moths and larvae was undoubtedly due to the destruction of most of the patches of the weed "arraza contodo" (Gonolobus dispersa) on which the insect has been feeding there.

*Correction: The note on Erpocasca fabae Harr. on page 494, by M. D. Leonard, should be corrected to E. fabalis DeLong.

INSECT CONDITIONS IN ANTIGUA, AUGUST 25-29, 1931

M. D. Leonard

Insular Experiment Station, Rio Piedras, Porto Rico

The sugarcane borer, Diatraea saccharalis Fab., is generally distributed and does considerable injury to sugarcane.

A number of adults of Ligyra turulosus Burr. were observed caught in the webs of a large spider in a considerable sized swampy area. The webs were common and were spun between the tops of the grasses. The

spiders extracted the juices from the beetles after they had been caught and securely wound about with silk.

Mealy bugs, Pseudococcus spp., were observed and are generally distributed on sugarcane but are of minor importance.

The sugarcane looper, Renigia (Mocis) repanda Fab., has been abundant and generally distributed during the year, feeding both on sugarcane and several grasses, especially Panicum maximum. (Harold E. Box.) A caterpillar was observed on August 23 feeding on guinea grass on the summit of Boggy Peak, the highest point on the island, 1360 feet.

Many coconut trees were observed the leaves of which had turned yellowish or brownish. Upon closer observation these were found to be badly infested with Aspidiotus destructor Sign.

The mango thrips, Heliethrips rubrocinctus Giar., was very scarce to absent on a number of mango trees examined in several parts of the island. This scarcity may be due to excessive rainfall during and previous to my visit.

The banana root weevil, Cosmopolites sordidus Germ., was apparently not present in banana plants observed in several localities. I believe it has not yet been recorded from Antigua.

Red spiders, Tetranychus sp., were almost entirely absent on several different patches of cassava examined.

Grasshoppers (Locustidae) were doing some damage to the leaves of cassava.

The pink boll worm, Pectinophora gossypiella Saund., badly damaged the 1928 cotton crops. The hurricane in the fall, however, destroyed all the young plants which were growing, and the crop of 1930 was free from the pest. This past season's crop, however, was lightly infested towards the end. The crop following the 1928 hurricane in Montserrat, it is interesting to note, was apparently damaged, according to Mr. Warnford, as badly by pink boll worm as those crops preceding it.

The cotton leaf worm, Alabama argillacea Hbn., was scarce on cotton during the past year.

A cotton stainer, Dysdercus andreae L., was generally present on cotton but only of minor importance.

The cotton blister mite, Eriophyes gossypii Glöv., was scarce as usual and did little damage.

A leaf beetle, Homophacta acuinotialis Fab., was swept from sweet-potatoes in small numbers and also observed in other plants, but the extent of the feeding of the adults, if any, was not determined.

A tortoise beetle, Contocycla sp., was swept in small numbers from several sweetpotato patches and was undoubtedly doing some feeding.

A leafhopper, possibly Empoasca fabalis De Long, was generally distributed although not abundant throughout the island.

An undetermined virid was observed in the adult (black) and several nymphal stages (pale colored) in a considerable sized patch of sweet-potatoes not far from St. Johns. The feeding punctures made on the underside of the leaves caused small dark spots, but apparently little injury was being done.

A dipterous leaf miner, undoubtedly Agromyza ipomeae Frost, was not numerous, but the mines were observed in every sweetpotato patch examined in several different parts of the island.

The eggplant lacebug, Corythaica monacha Stal, was not observed on several egg plants examined but it was present in small to large numbers on its natural wild foot plant, Solanum torvum, in several parts of the island.

The tobacco flea beetle, Eutrix parvula Fab., was fairly common and injurious in several small patches of eggplant examined.

The melon worm, Diaphania hyalinata L., was found badly damaging a small patch of only a few vines of squash.

A small black squash bug, Pycnoderes incurvus Distant, was common on the squash vines and doing a little damage. The nymphs were present in all stages, being pale in color.

A large grasshopper, probably Schistocerca sp., was common in all parts and doing more or less feeding on various plants.

The yellow-striped armyworm, Prodenia ornithogalli Guen., has been very common on many different kinds of plants during the past few months. (H.E.Box.)

A number of plants at the Botanic Gardens were considerably infested by the larger canna leaf roller, Calpodex ethlius Cram.

An undetermined lepidopterous leaf skeletonizer was very abundant on a hedge of black bead (Pithecolobium unguis-cacti) at the Botanic Gardens in St. Johns. A great many leaves were either tied together or folded and were so badly eaten that the entire hedge had a yellowish appearance.

A lepidopterous leaf skeletonizer, probably Sylepta gordialis Guen., was doing considerable damage to a number of plants of Bougainvillea glabra in the Botanic Gardens.

